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U. S. A R M Y

TRANSPORTATION RESEARCH COMMAND

FORT EUSTIS, VIRGINIA

SUPPLEMENT

to

TRECOM TECHNICAL REPORT 63-81

CRASH INJURY EVALUATION

PERSONNEL RESTRAINT SYSTEMS STUDY

UH-1A AND UH-1B BELL IROQUOIS HELICOPTERS

Contract DA 44-177-AMC-888(T)

March 1964

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340

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Call p

prepared by:

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Phoenix, Arizona

A Division Of
Flight Safety Foundation, Inc.
New York, New York



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Task 1A024701A12101
Contract DA 44-177-AMC-888(T)
TRECOM Technical Report 63-81
March 1964

SUPPLEMENT
to
PERSONNEL RESTRAINT SYSTEMS STUDY
UH-1A AND UH-1B BELL IROQUOIS HELICOPTERS

Crash Injury Evaluation
AvSER 62-27

Prepared by
Aviation Safety Engineering and Research
2871 Sky Harbor Blvd.
Phoenix, Arizona
A Division of
Flight Safety Foundation, Inc.

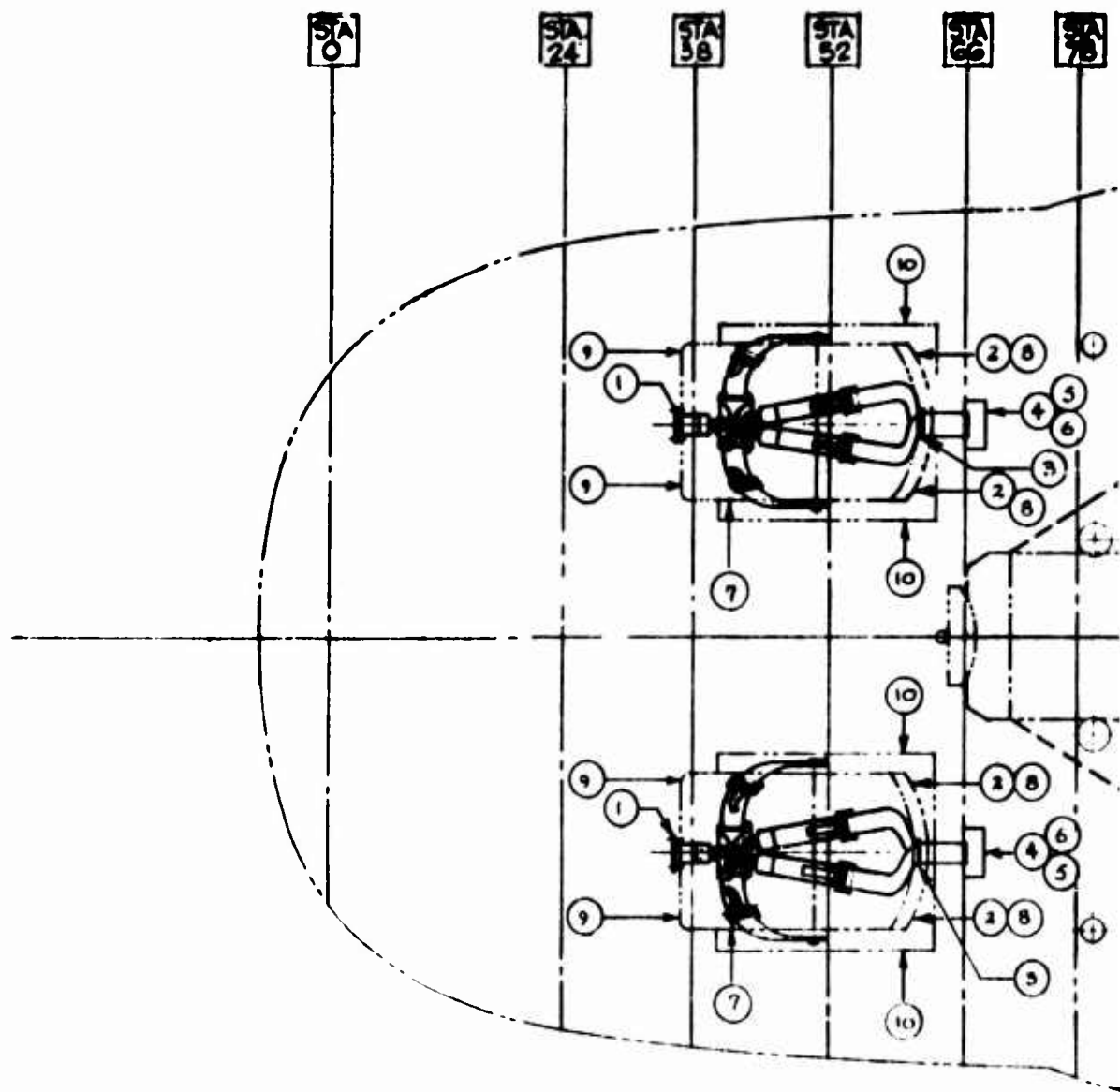
for
U. S. ARMY TRANSPORTATION RESEARCH COMMAND
FORT EUSTIS, VIRGINIA

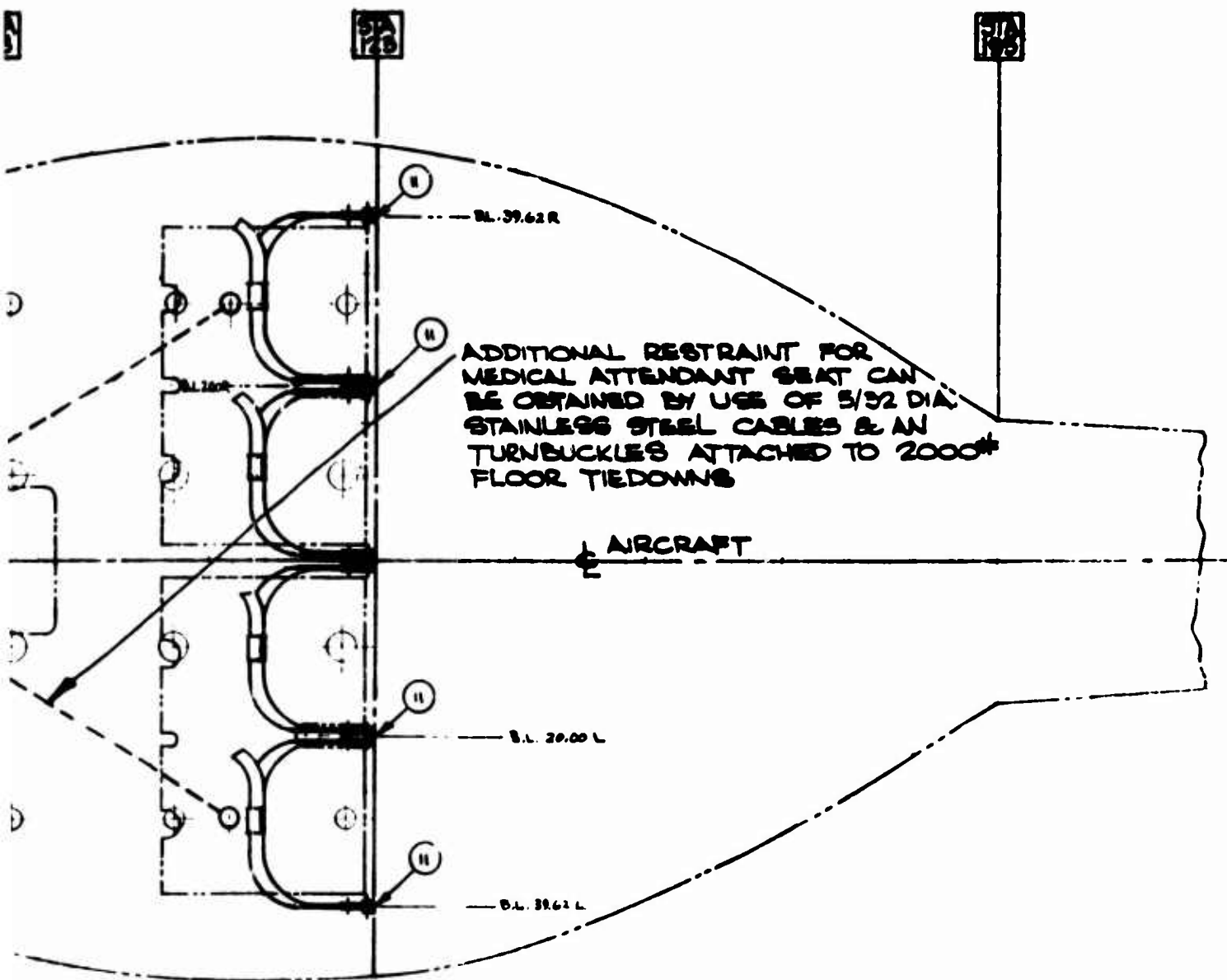
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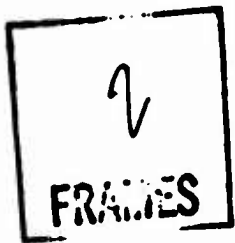
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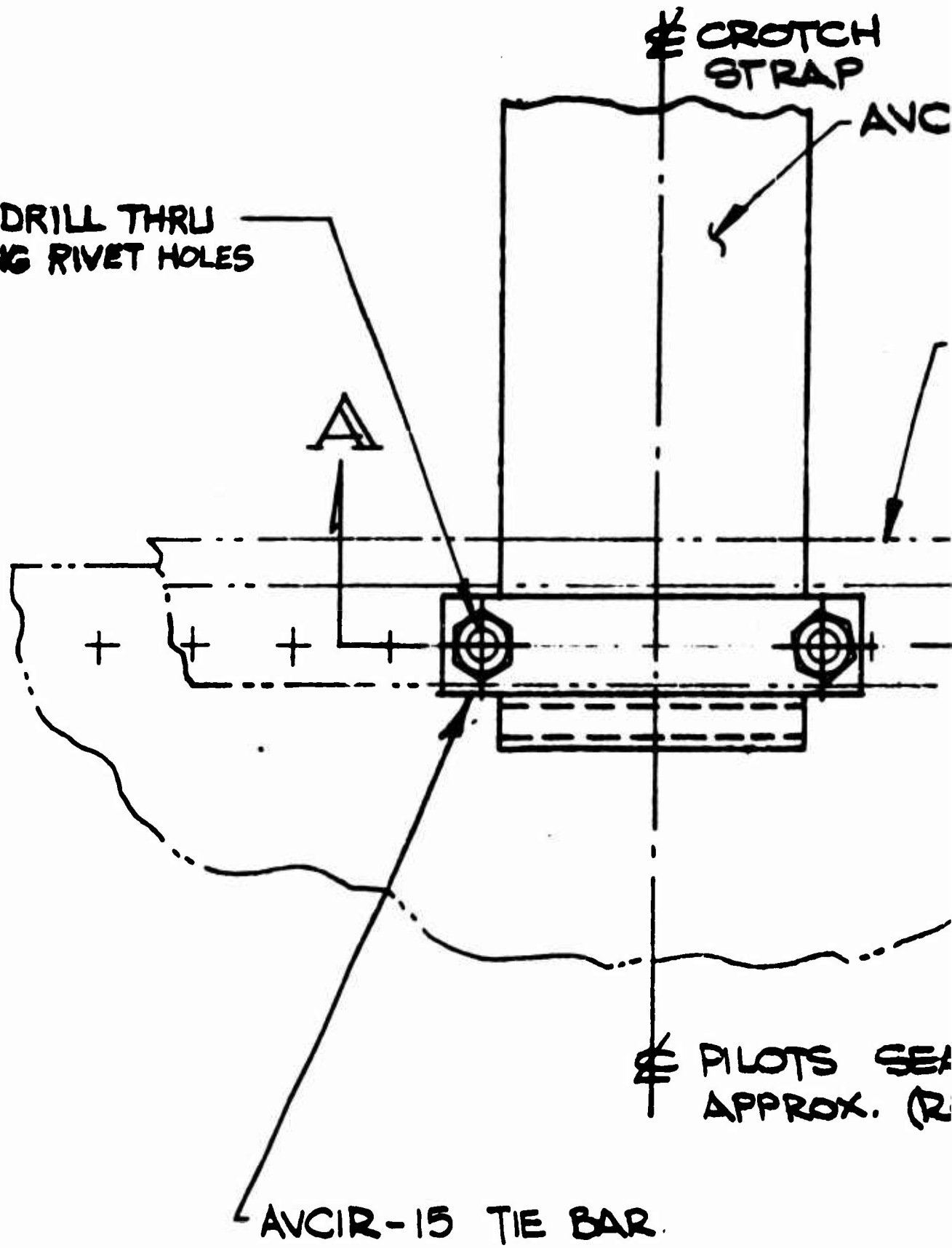
1
F. LIES







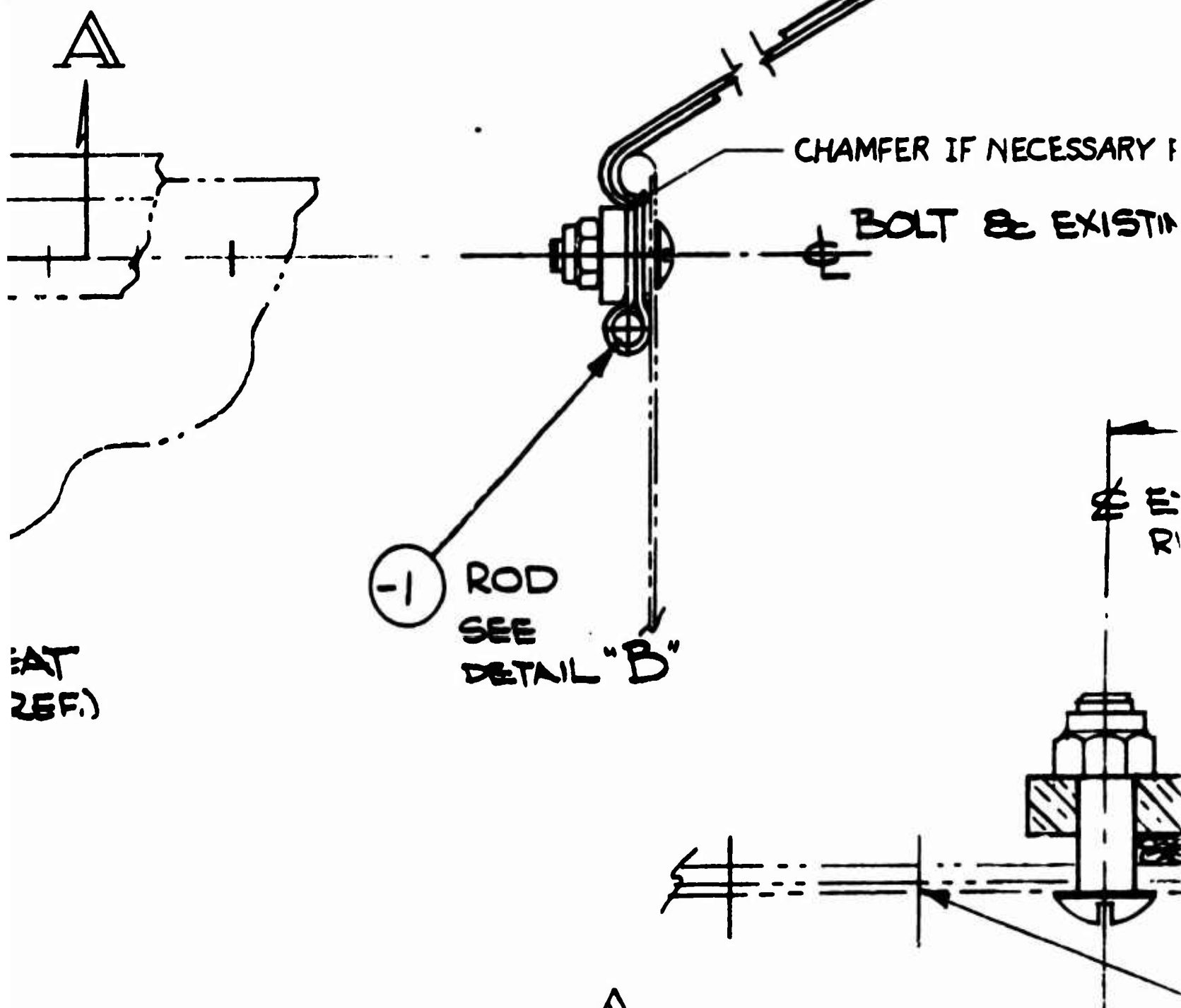
$\frac{3}{16}$ DRILL THRU
EXISTING RIVET HOLES



A

CIR-10

FRAME & BUCKET
PILOT & CO-PILOT SEAT
204-070-706 (REF.)



SECTION A
DOUBLE SIZE

INSTALLED
THIS SIDE UP

CROTCH STRAP (REF.)

CHAMFER IF NECESSARY FOR CLEARANCE, ONE SIDE ONLY

BOLT & EXISTING RIVETS

B₂

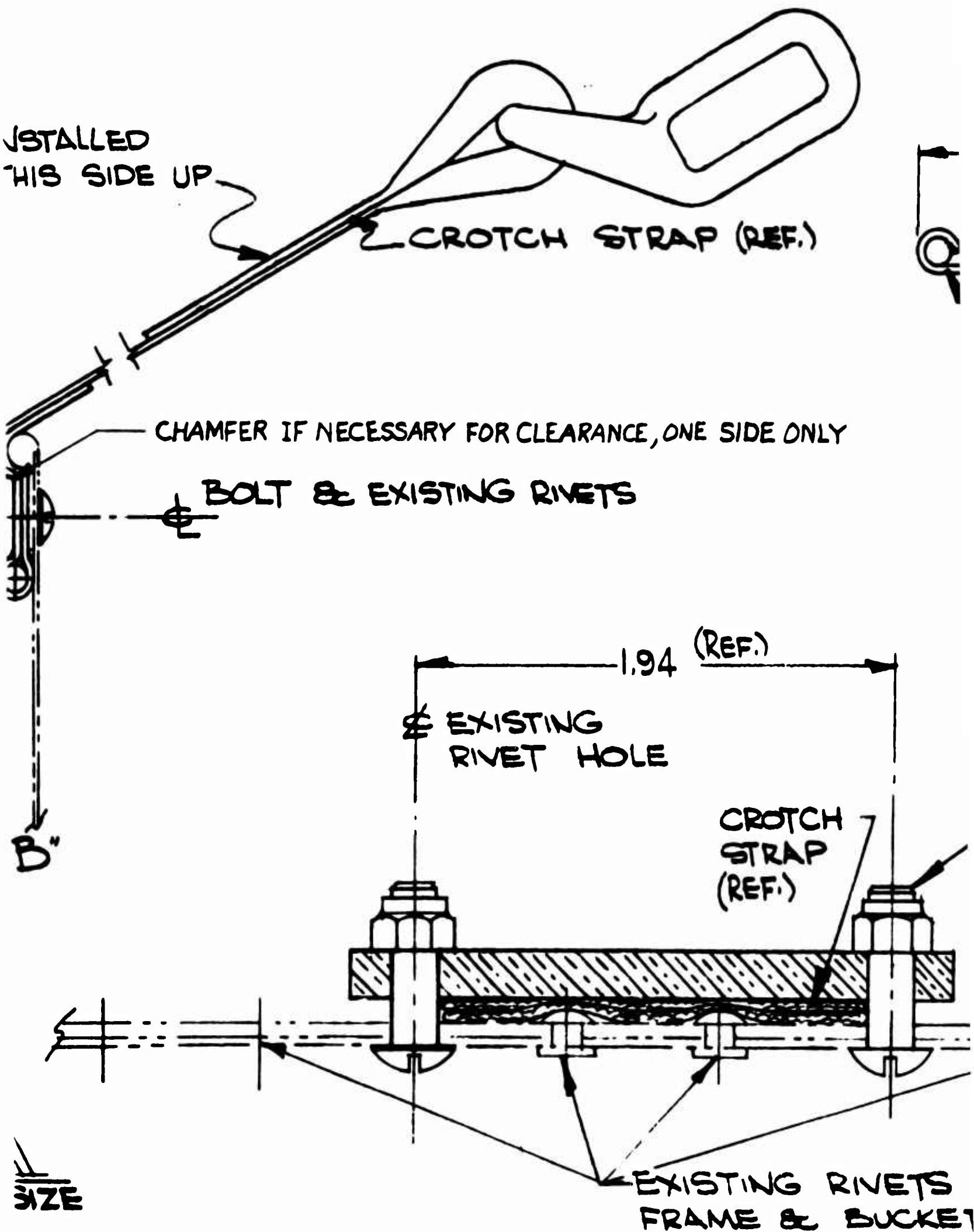
1.94 (REF.)

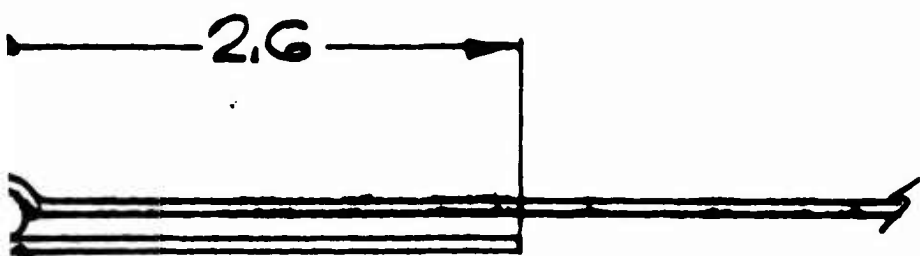
EXISTING
RIVET HOLE

CROTCH
STRAP
(REF.)

SIZE

EXISTING RIVETS
FRAME & BUCKET



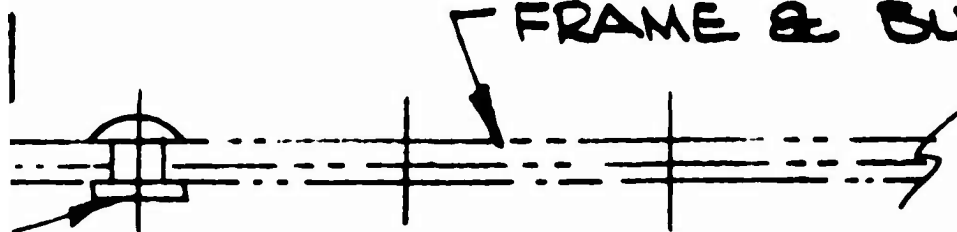


CEMENT ROD TO WEBBING IN SEVERAL SPOTS
BEFORE CLAMPING

DETAIL B

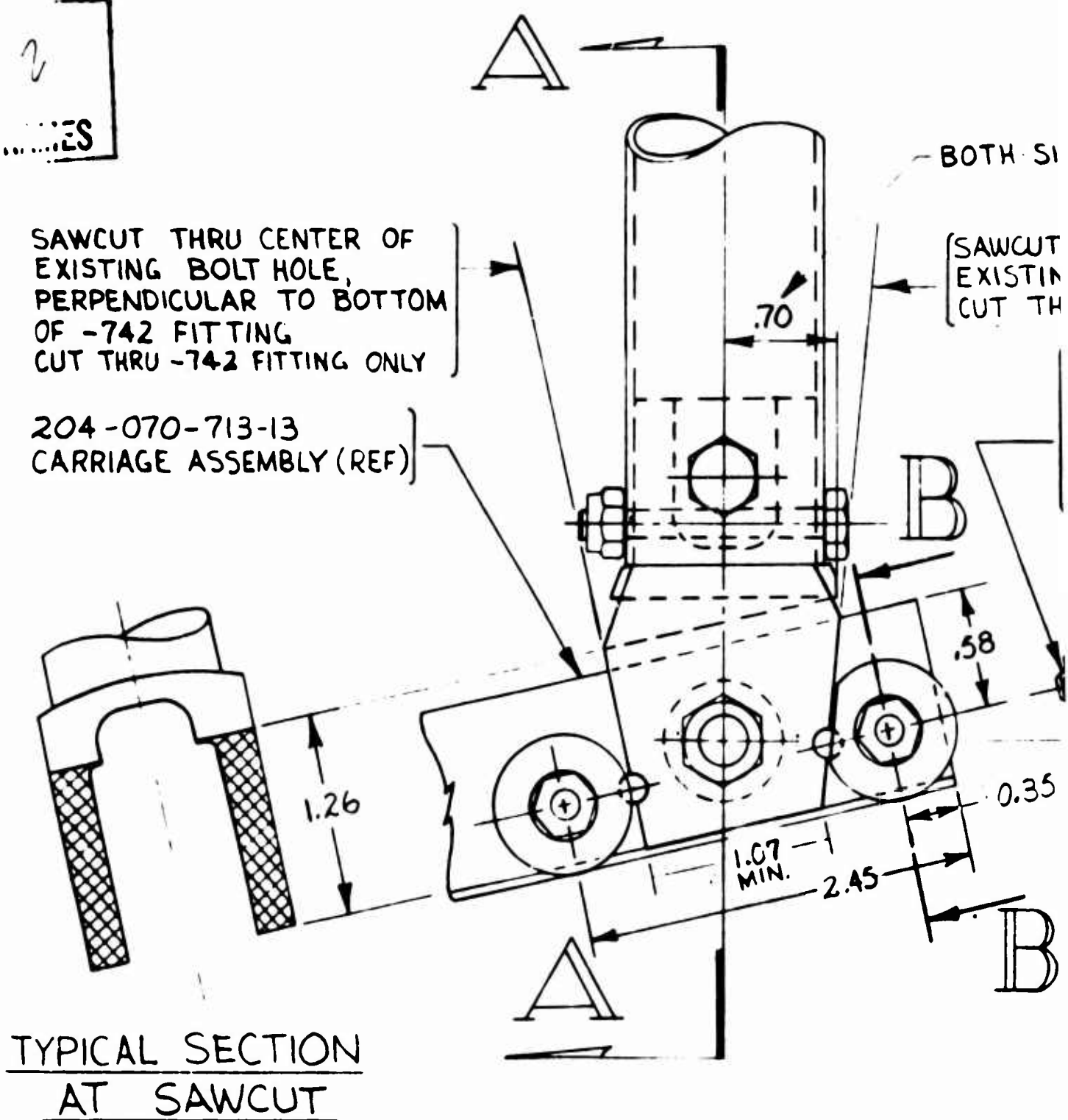
AN 23-9A CLEVIS BOLT
AN 365-1032 NUT
2 REQ EA.

FRAME & BUCKET (REF.)



B

IN
IT ASSEM (REF.)



8. REASSEMBLE SIMILAR TO EXISTING ARRANGEMENT
7. INSTALL NEW AN3 BOLTS AND WASHERS. GRIND AN970-3 W
6. DRILL THRU CARRIAGE CHANNEL 0.191 DIA. AS SHOWN, 2 PL
5. DRILL OUT EXISTING ROLLER TO .468 DIA.
4. DRILL NEW .191 DIA. HOLE THRU TUBE AND FITTING AS SHO
3. SAWCUT FITTING AS SHOWN
2. REPLACE EXISTING SPACER WITH NAS43-5-53 SPACER
1. REMOVE. FITTING, 1.25" STEEL TUBE AND CARRIAGE

A

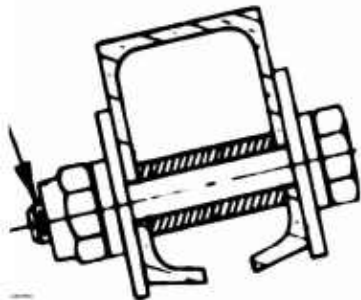
MODIFICATION PROCEDURE:

SECTION A-A

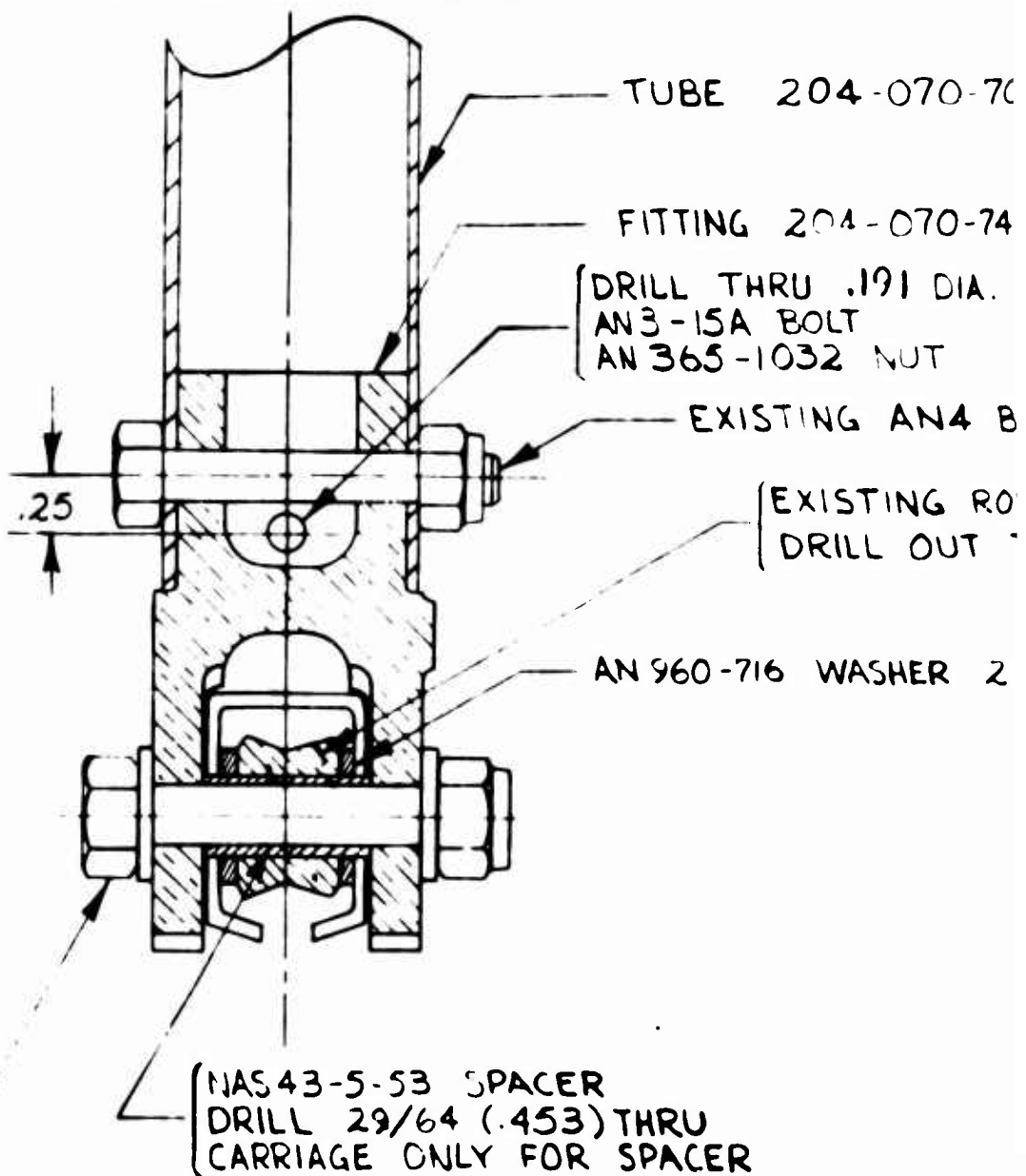
SIDES

IT THRU CENTER OF
ING BOLT HOLE
THRU -742 FITTING ONLY

(DRILL THRU .191 (NO. 11 DRILL)
AN3-13 BOLT 1 REQ
AN970-3 WASHER 2 REQ
AN960PD10 WASHER 2 REQ
NAS 43-3-42 SPACER (EXISTING)
AN365-1032 NUT 1 REQ



SECTION B-B (TYPICAL 2 PLACES)



WASHERS AS NECESSARY TO CLEAR -742 FITTINGS
LACES

OWN AND INSTALL AN3-15A BOLT

CHANNEL FROM SEAT

70x

742

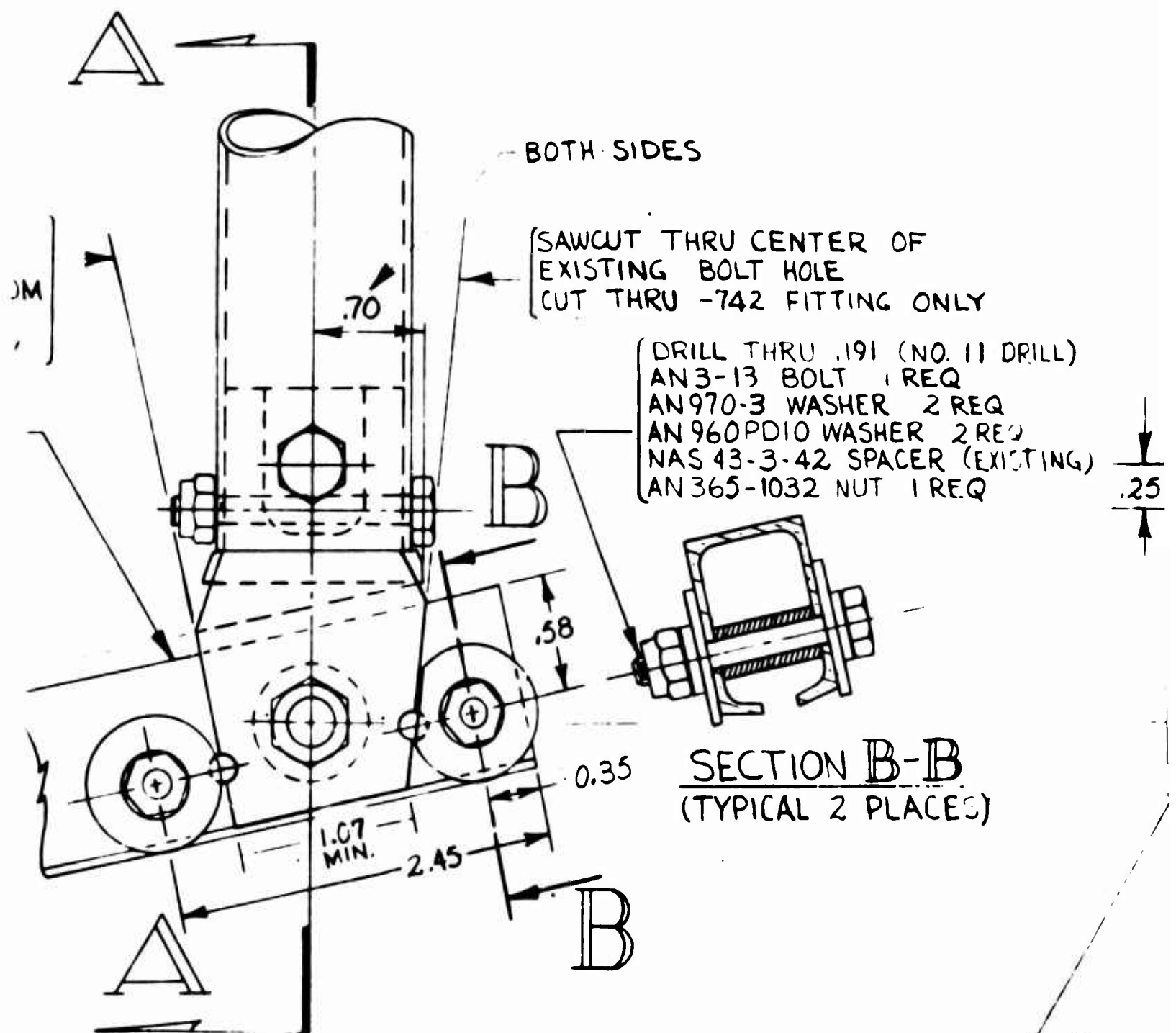
1

BOL

COL

T

2 F



R TO EXISTING ARRANGEMENT

BOLTS AND WASHERS. GRIND AN970-3 WASHERS AS NECESSARY TO CLEAR
THE CHANNEL 0.191 DIA. AS SHOWN, 2 PLACES

ROLLER TO .468 DIA.

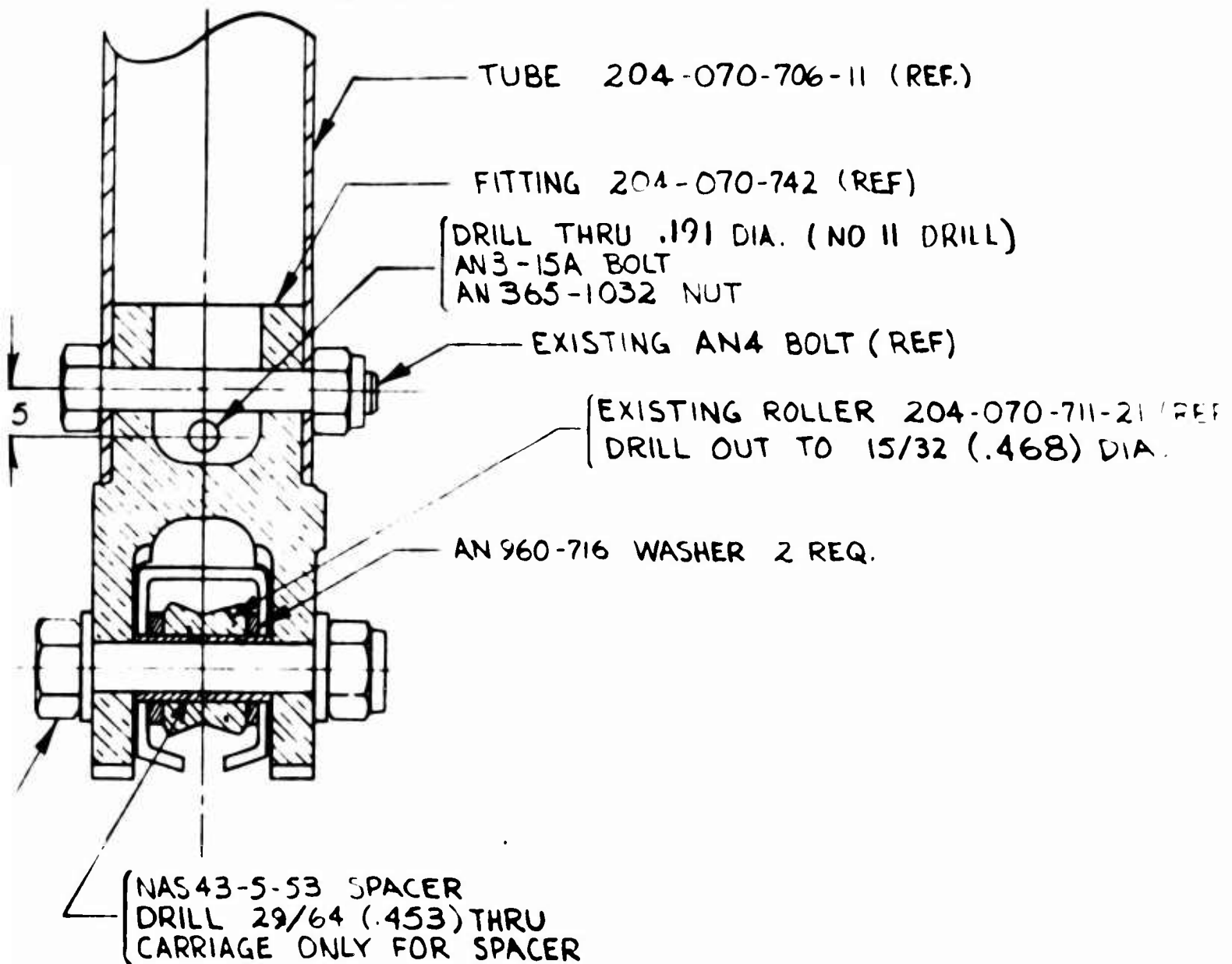
HOLE THRU TUBE AND FITTING AS SHOWN AND INSTALL AN3-15A BOLT
AS SHOWN

SPACER WITH NAS43-5-53 SPACER

1.25" STEEL TUBE AND CARRIAGE CHANNEL FROM SEAT

PROCEDURE:

SECTION A-A



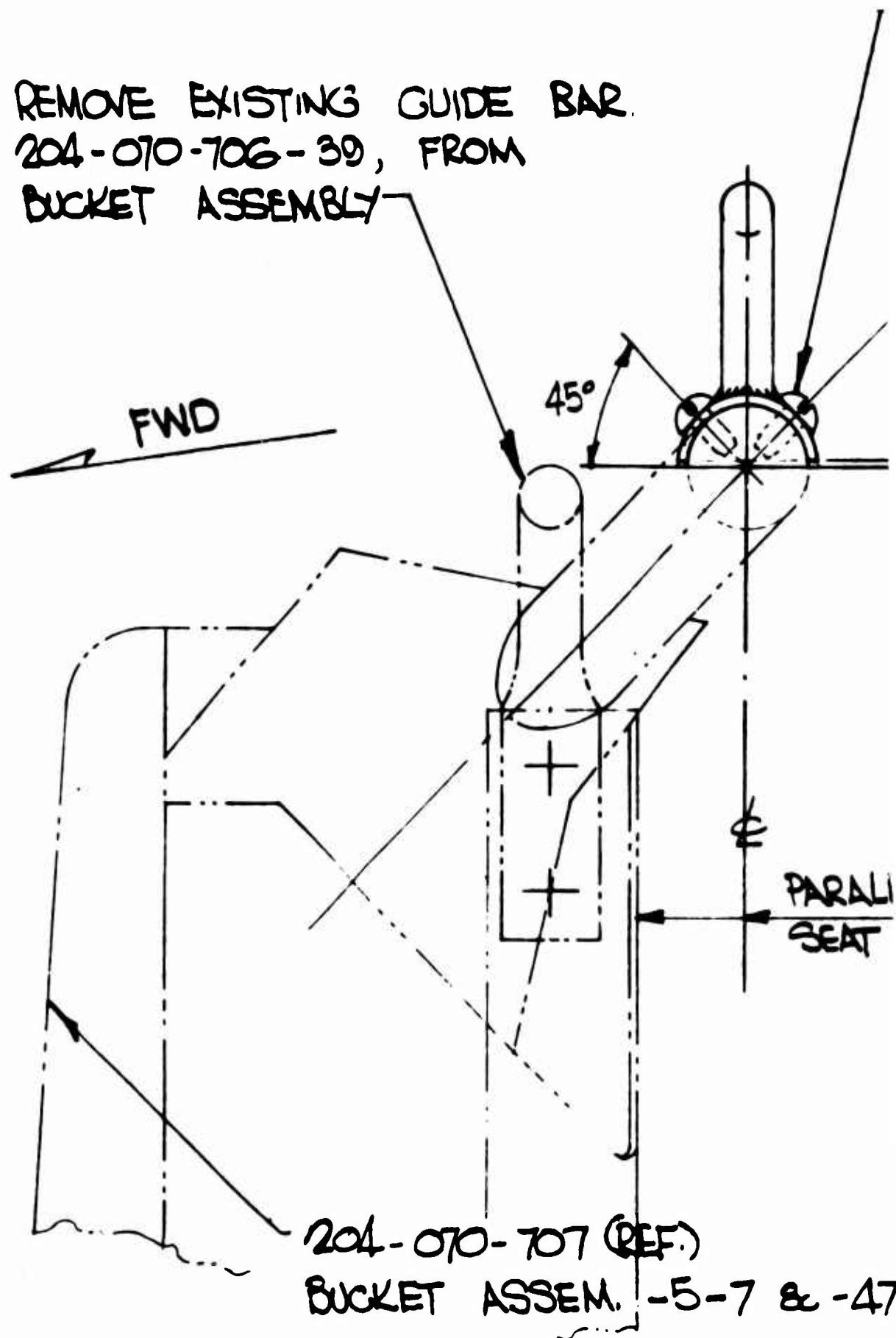
DRILL THRU AND REPLACE
EXISTING BOLT WITH
-16A BOLT 1 REQ
65-5 NUT 1 REQ
60 PD516L WASHER 2 REQ

2 -742 FITTINGS

B

2
FRAMES

REMOVE EXISTING GUIDE BAR.
204-070-706-39, FROM
BUCKET ASSEMBLY



A

2. AFTER HEAT TREAT, DIP ENTIRE ASSEMBLY
CHROMATE PRIMER - SPEC. MIL-P-6889

1. HEAT TREAT ENTIRE ASSEMBLY AFTER WELDING

AN330C8-6
SELF TAPPING SCREW
4 PLACES

204-070-715-7
SUPPORT ASSEM. (REF.)
3/4 x .065 STL TUBE

45° (REF.)

.08 x 45°
FILLET WELD

1/2 SAWCUT

LEVEL TO
BACK.

EXISTING
GUIDE BAR (REF.)

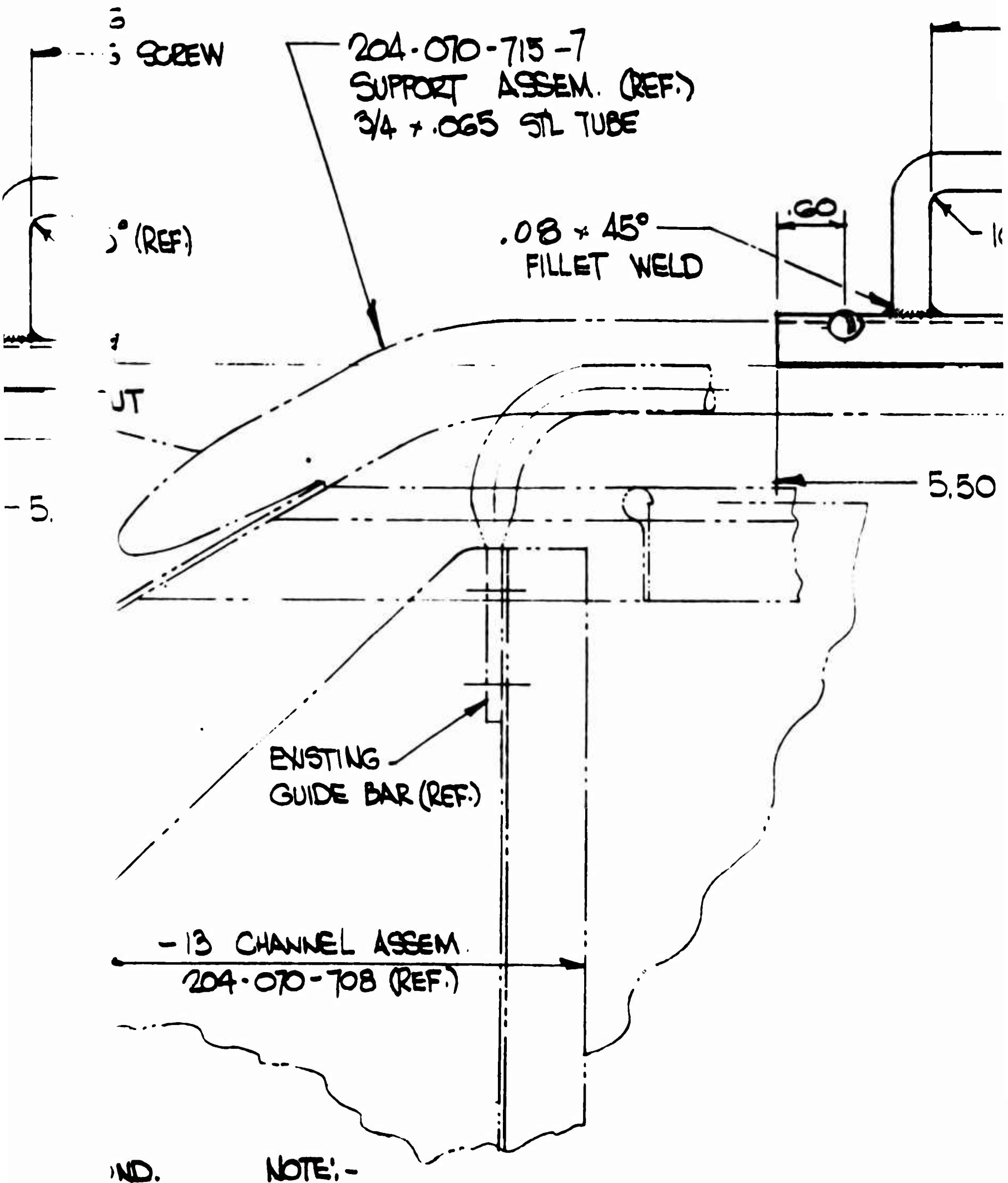
-13 CHANNEL ASSEM.
204-070-708 (REF.)

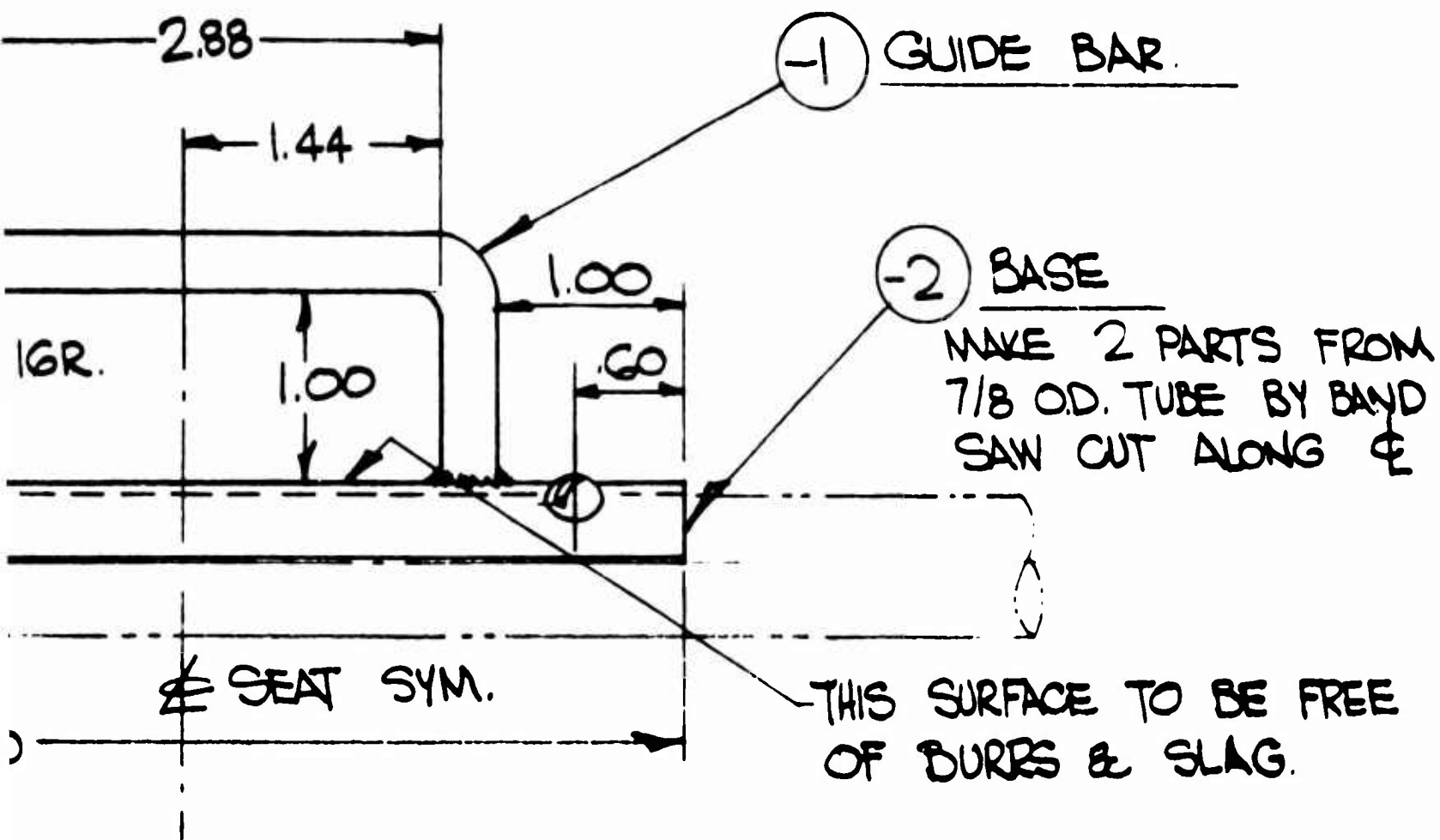
7

Y IN ZINC

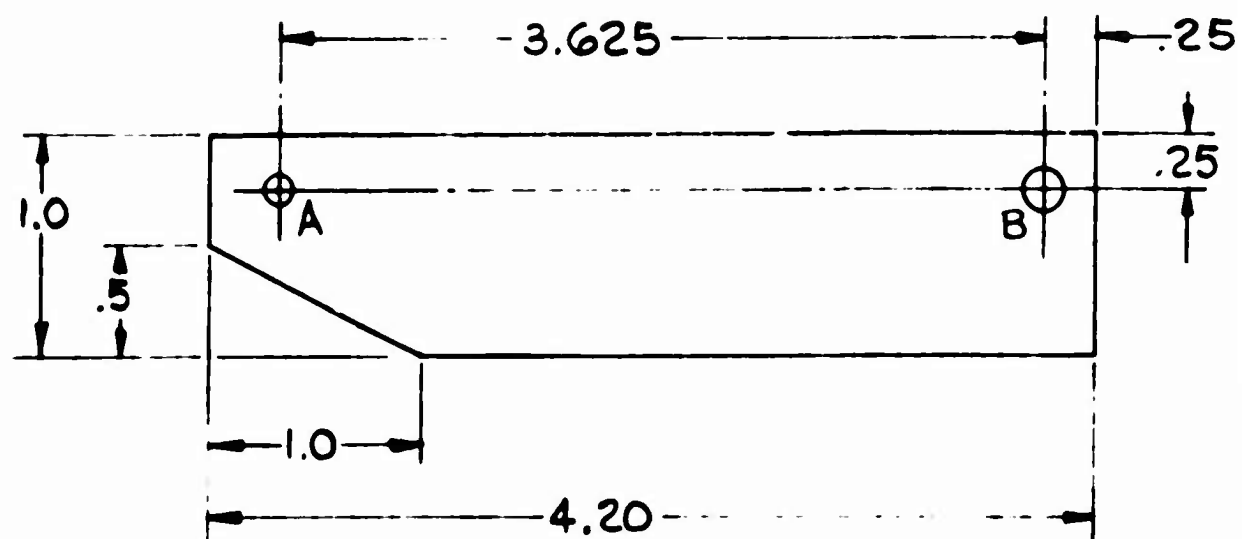
DING -TG COND.

NOTE:-



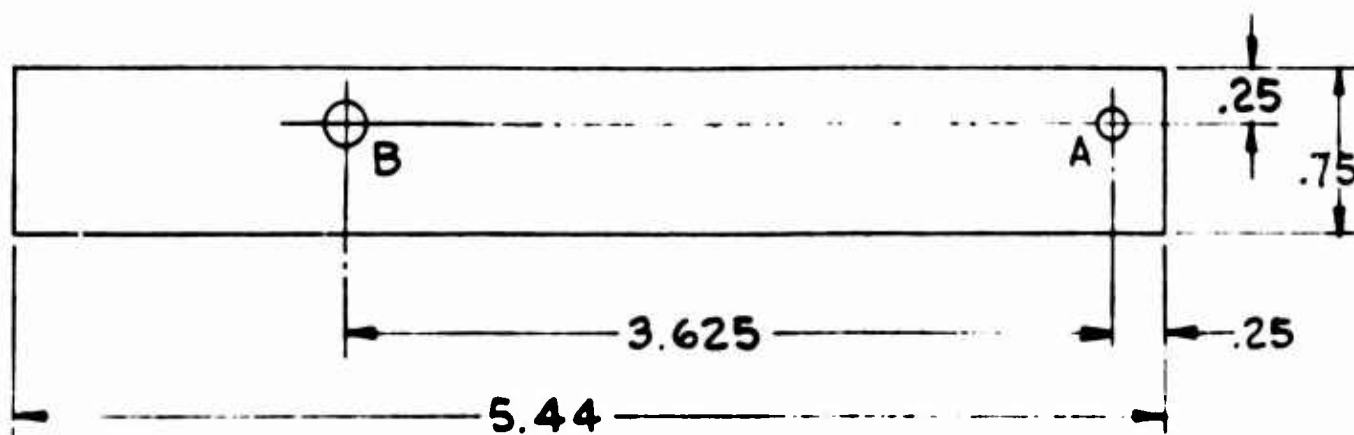


B

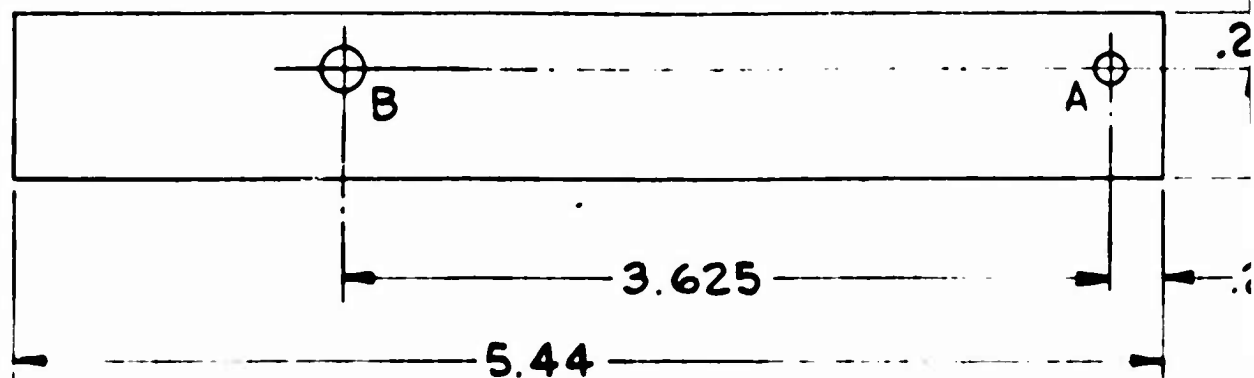


DETAIL -1
DOUBLER (.050 THICK SHEET)

HOLE	SIZE
A	1/8 DRILL (.125 DIA) THRU
B	#11 DRILL (.193 DIA) THRU



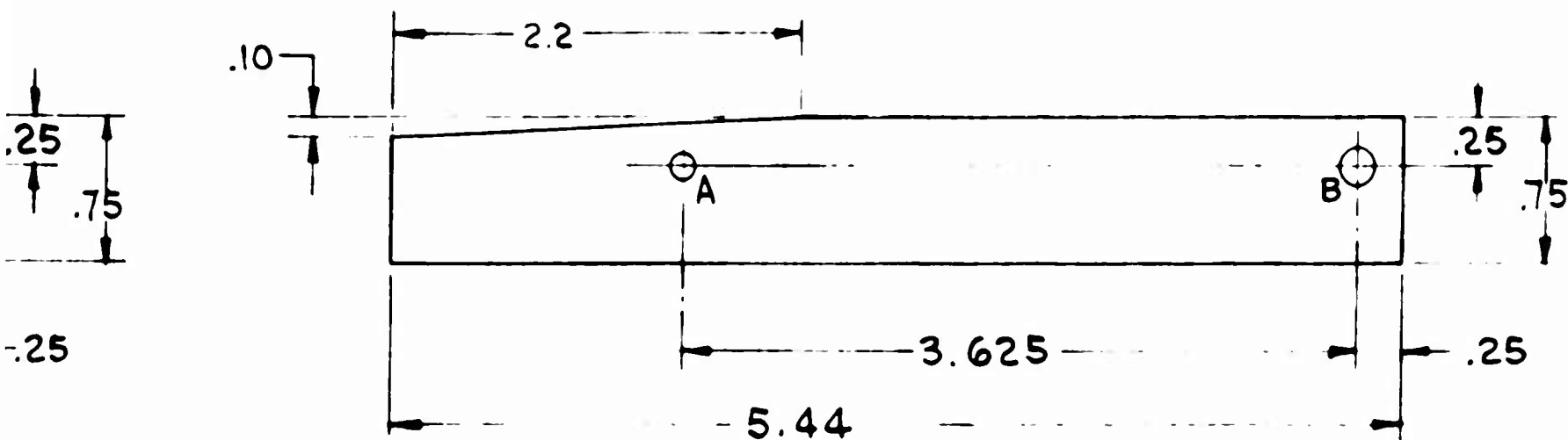
DETAIL - 2
DOUBLER (.063 THICK SHEET)



DETAIL - 2

DOUBLER (.063 THICK SHEET)

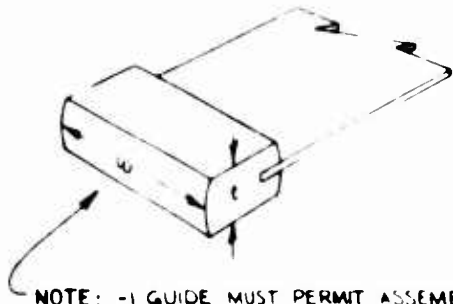
SHEET)



DETAIL -3
DOUBLER (.063 THICK SHEET)

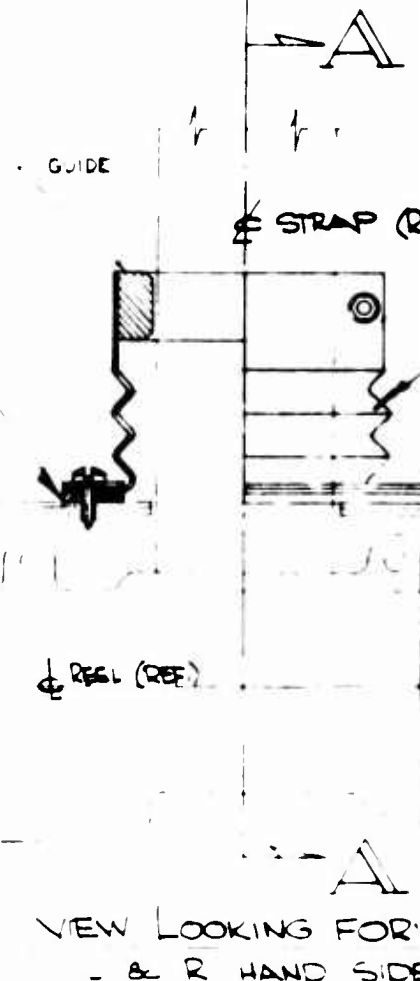
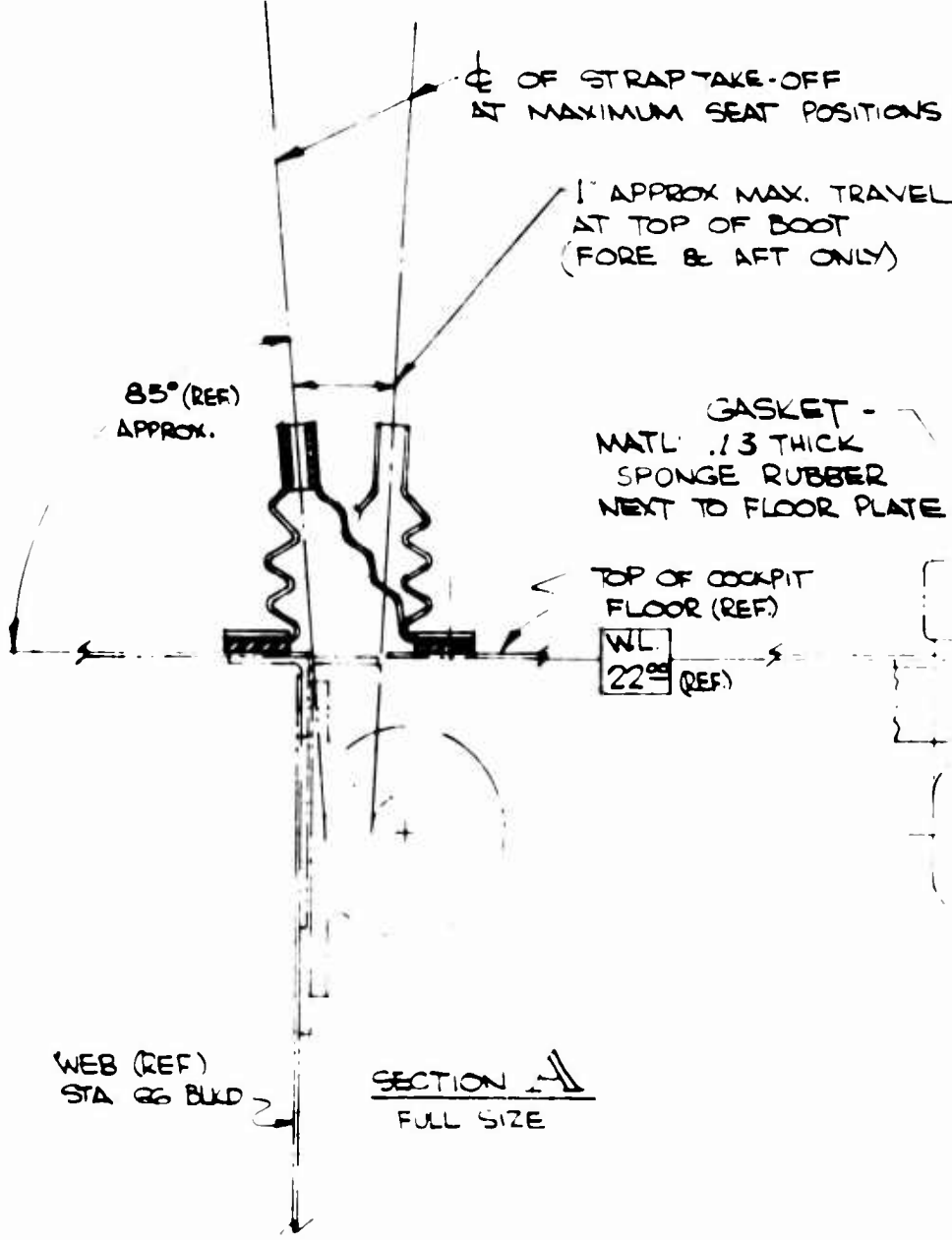
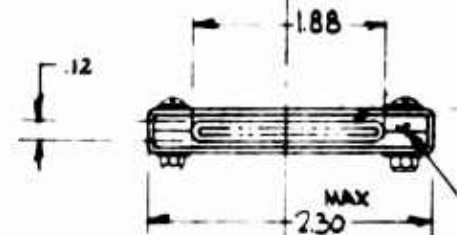
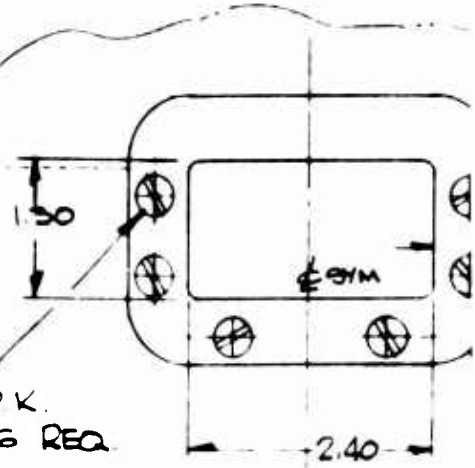
B

FRAMES



NOTE: -1 GUIDE MUST PERMIT ASSEMBLY USING SHOULDER HARNESS STRAP WITH END FITTING AS SHOWN (t = .25 in ; w = 1.75 in)

#8-32 DIA. SCREWS
SELF-TAPPING - P.K.
OR EQUIVALENT 6 REQ.

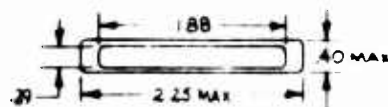
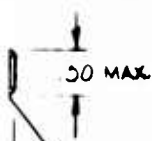


ACCESS DOOR ON COCKPIT
FLOOR 204-031-327(REF)
(L.H. SIDE ONLY)



BASE PLATE
MAT'L: .06 AL. AL
7075-T6 BONDED TO BOOT

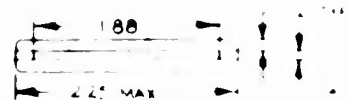
HOLE MUST BE FREE OF ROUGH EDGES
TO PERMIT EASY MOVEMENT OF
NYLON OR DACRON WEBBING WITHOUT FRAYING



GUIDE - BONDED TO BOOT
MAY BE MADE OF ALUM.
ALLOY, PLASTIC OR PHENOLIC
FIBRE MATERIAL

-1 GUIDE - ALTERNATE NO. 1 -
SINGLE PIECE -

-1 GUIDE - ALTERNATE NO. 2 -
SHEET STOCK -



(REF.)

BOOT - MAT'L: 1/32 THICK APPROX
MOULDED NEOPRENE RUBBER OR FABRIC
BONDED WITH BASE PLATE
AND GUIDE



TYPE MA-G INERTIA REEL
INSTALLED BENEATH FLOOR
- & R HAND SIDE, AFT SIDE
OF STA 66 BLKD

2-WARD 1/4 SECTION
DE @ BL 22 APPROX

SEAT ASSEMBLY
PILOT & CO-PILOT
204-070-700 (REF)

HAR
PACIFIC SCIENTIF

ACCESS DOOR -
IN COCKPIT FLOOR (REF)
L.H. SIDE ONLY

FUSELAGE SHELL
FWD SECTION (REF)

CONTROL INSTALLATION
TO PILOT SEAT HJ-1-17

HU-1-16
FLOOR MODIFICATION
& INERTIA REEL INSTALL
SHEET #2 L.H. SIDE (REF)
SHEET #3 R.H. SIDE (REF)

TOP OF COCKPIT FLOOR
W.L. 22 APPROX. (REF)

FUSELAGE CONTOUR
AT STA 78 BLKD (REF)

FORWARD

OUTBOARD

ISOMETRIC VIEW LOOKING DOWN

L.H. SIDE OF AIRCRAFT
SCALE: 1/4 APPROX

A

WARRNESS-AIRCRAFT SAFETY SHOULDER, ADJUSTABLE
 TIFIC CO.-PART NO. 0101533-78 IN LENGTH

DUST COVER - HU-1-15

STA
 66 (REF.)

AFT SIDE- STA 66 BLKD (REF.)

STA
 78 (REF.)

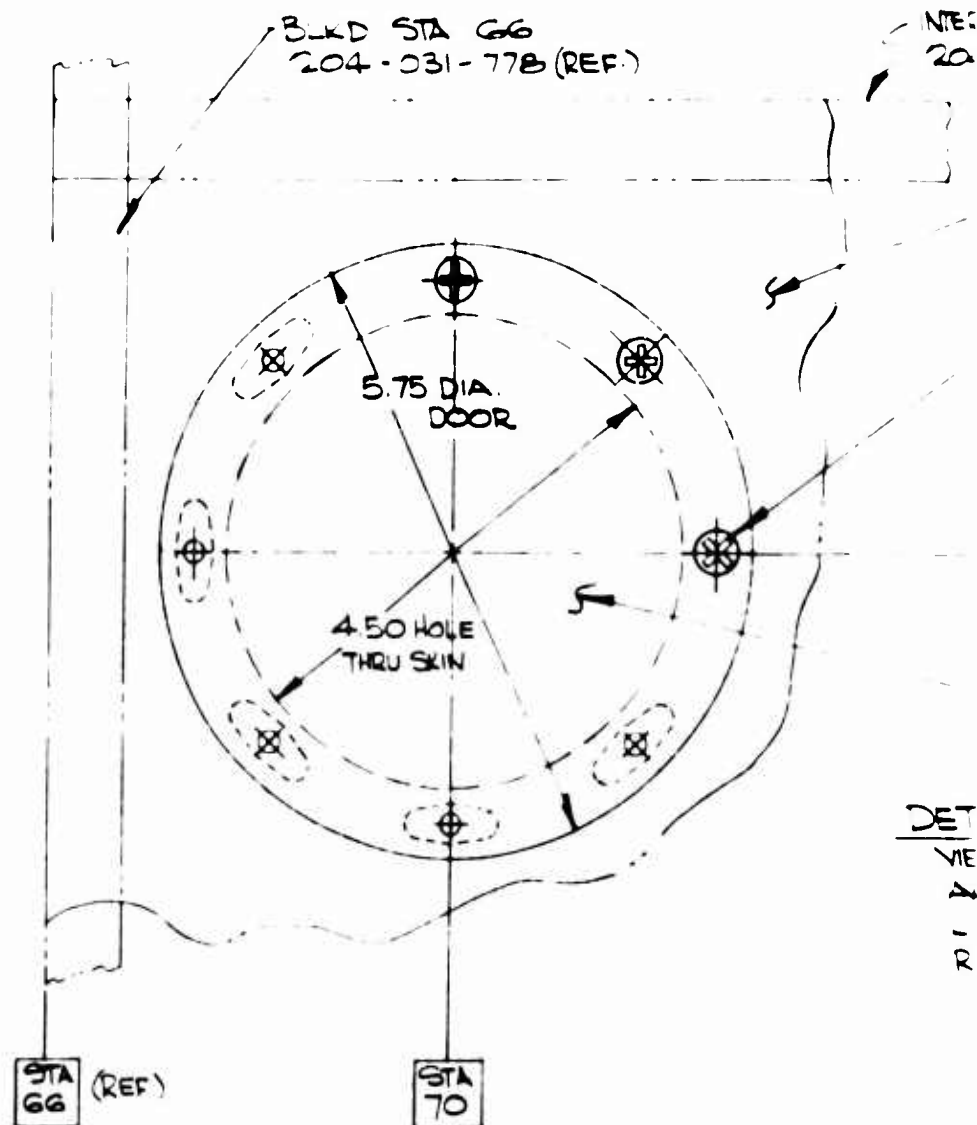
STA
 66 (REF.)

NEW ACCESS DOOR THRU
 LOWER SKIN PANEL
 SEE DETAIL A

(REF.) OUTER SKIN GAGE .040
 LOWER PANEL
 204-031 007 (REF.)

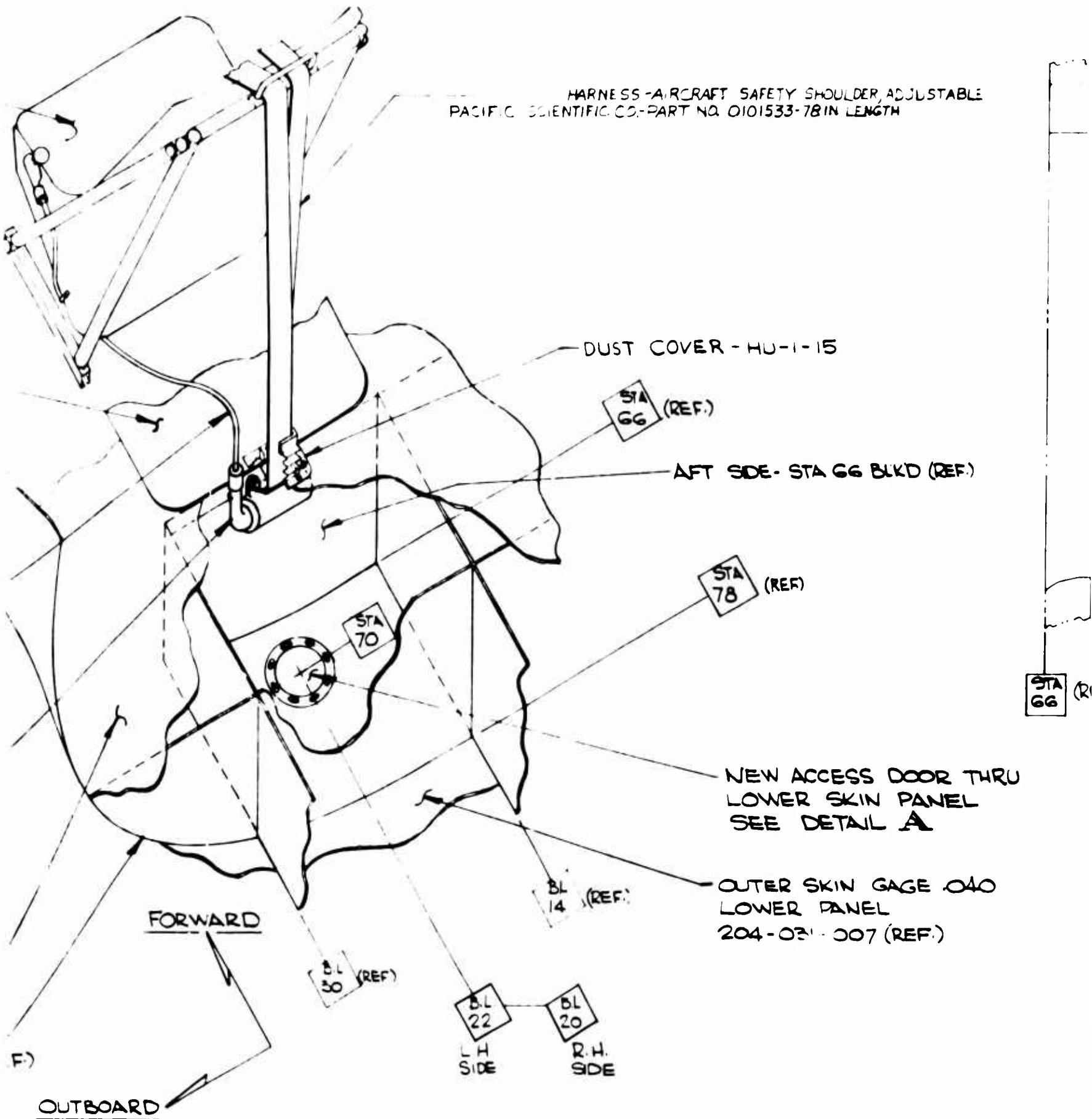
2. H.
 SIDE

DOWN

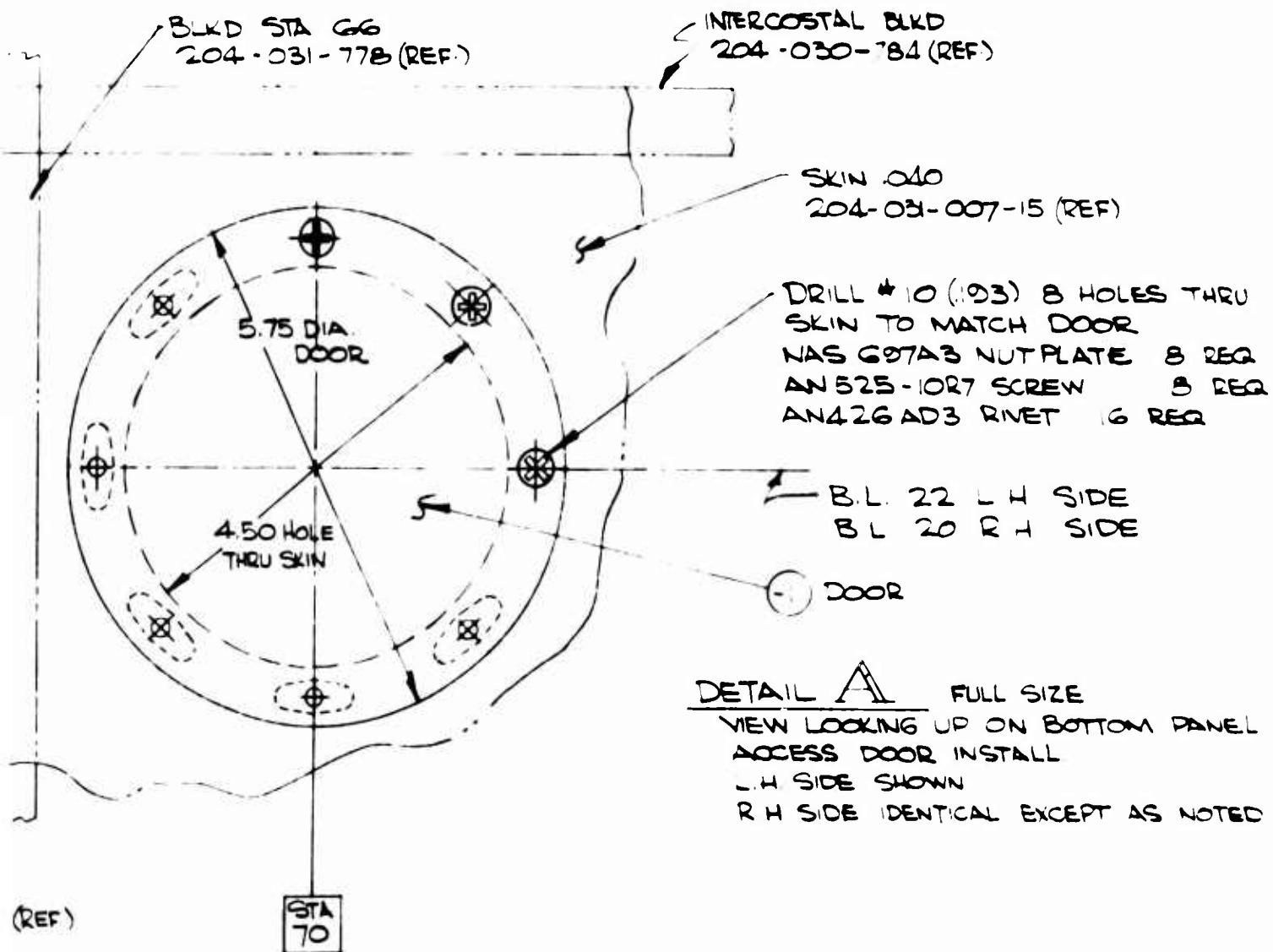


THIS PART REPLACES SHOULDER HARNESS PART NO AF 5003770 (TYPE G-1)
 AND INERTIA REEL STRAP PART NO 0101238 (FAC SCIENT CO.) THIS
 CHANGE RESULTS IN 1.0 LB WT DECREASE FOR EACH SEAT

HARNESS-AIRCRAFT SAFETY SHOULDER, ADJUSTABLE
PACIFIC SCIENTIFIC CO.-PART NO. 0101533-78 IN LENGTH

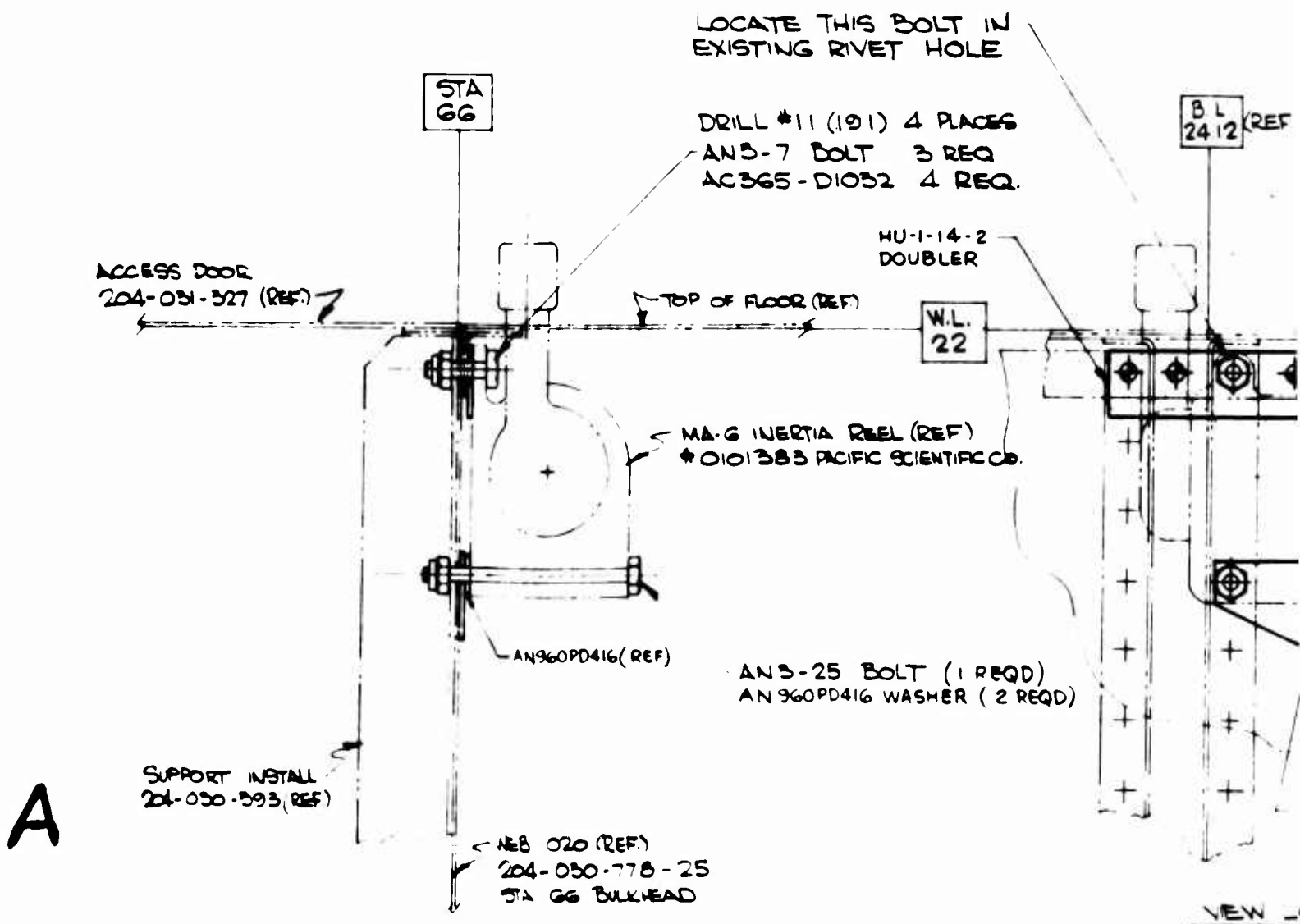
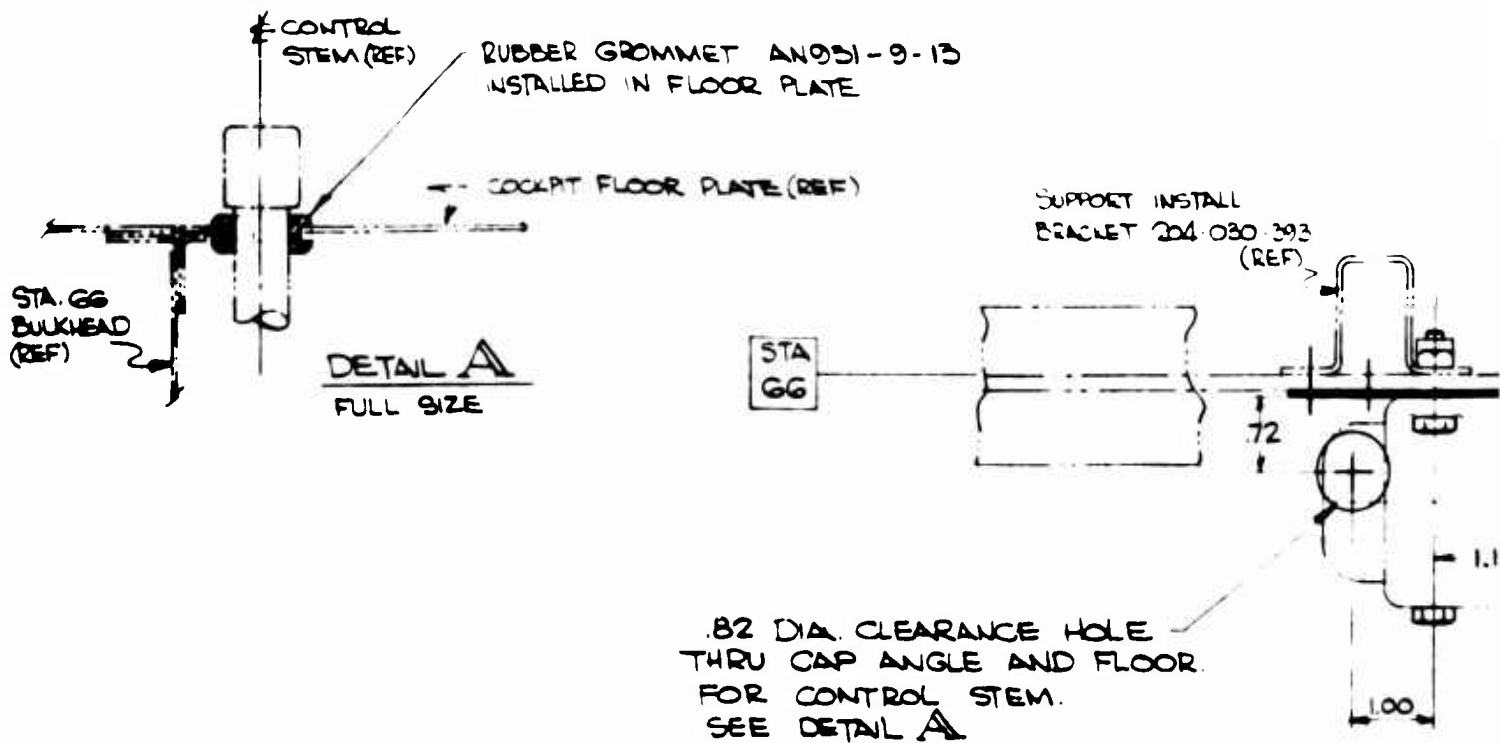


ISOMETRIC VIEW LOOKING DOWN
L.H. SIDE OF AIRCRAFT
SCALE: 1/4 APPROX.



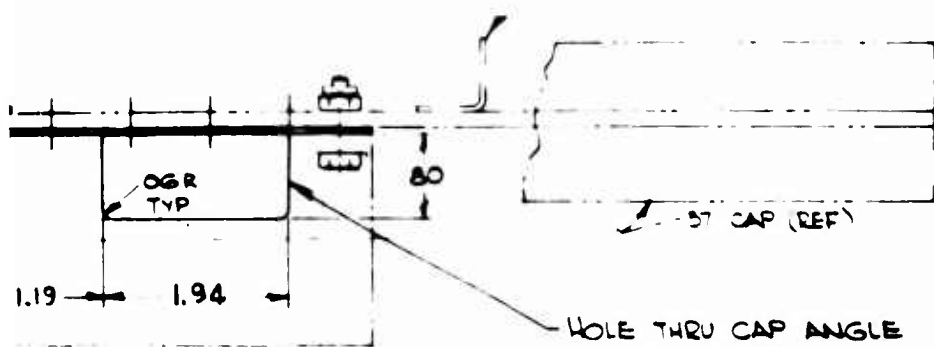
B

REPLACES SHOULDER HARNESS PART NO AF 50D3770 (TYPE G-1)
1 REEL STRAP PART NO 0101238 (KAC SCIENT CO.). THIS
SULTS IN .10 LB WT DECREASE FOR EACH SEAT

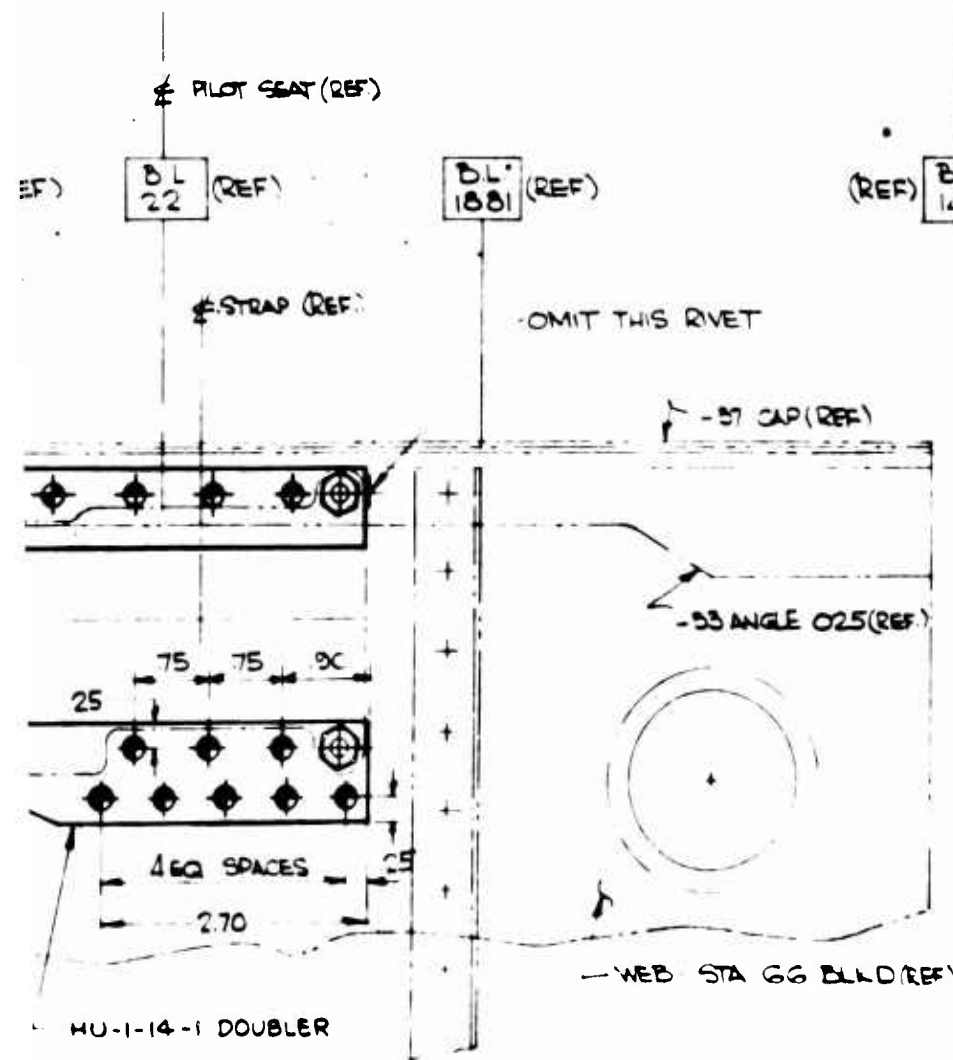


-23 STIFFENER (REF)

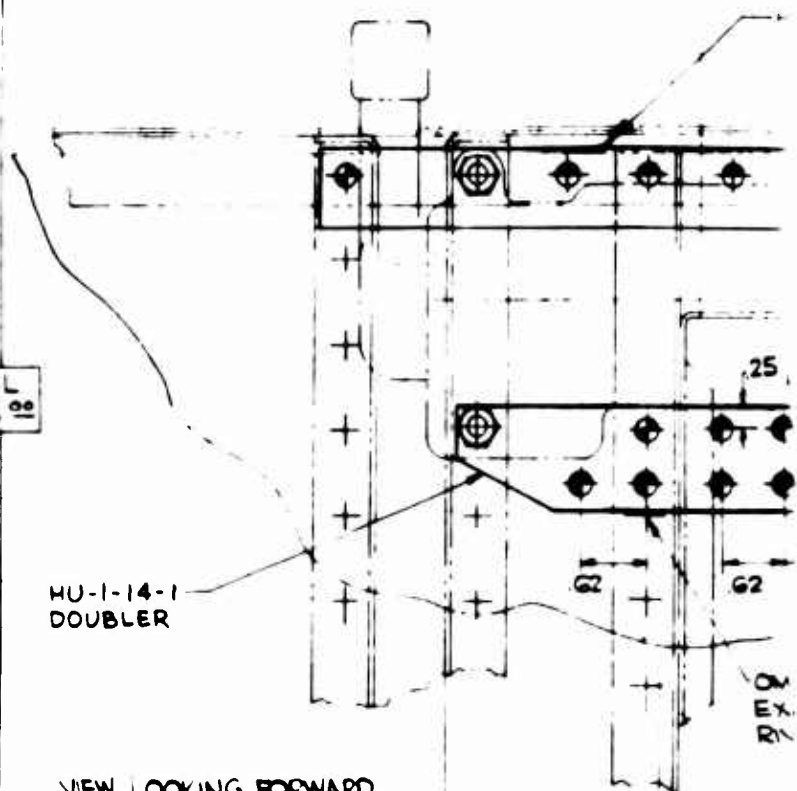
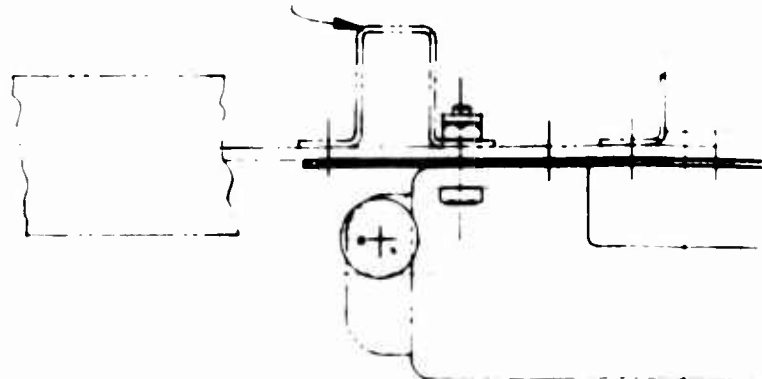
SUPPORT INSTALL
204-050-393 (REF)



PLAN VIEW
FLOOR PLATE NOT SHOWN
HU-1A AIRCRAFT ONLY



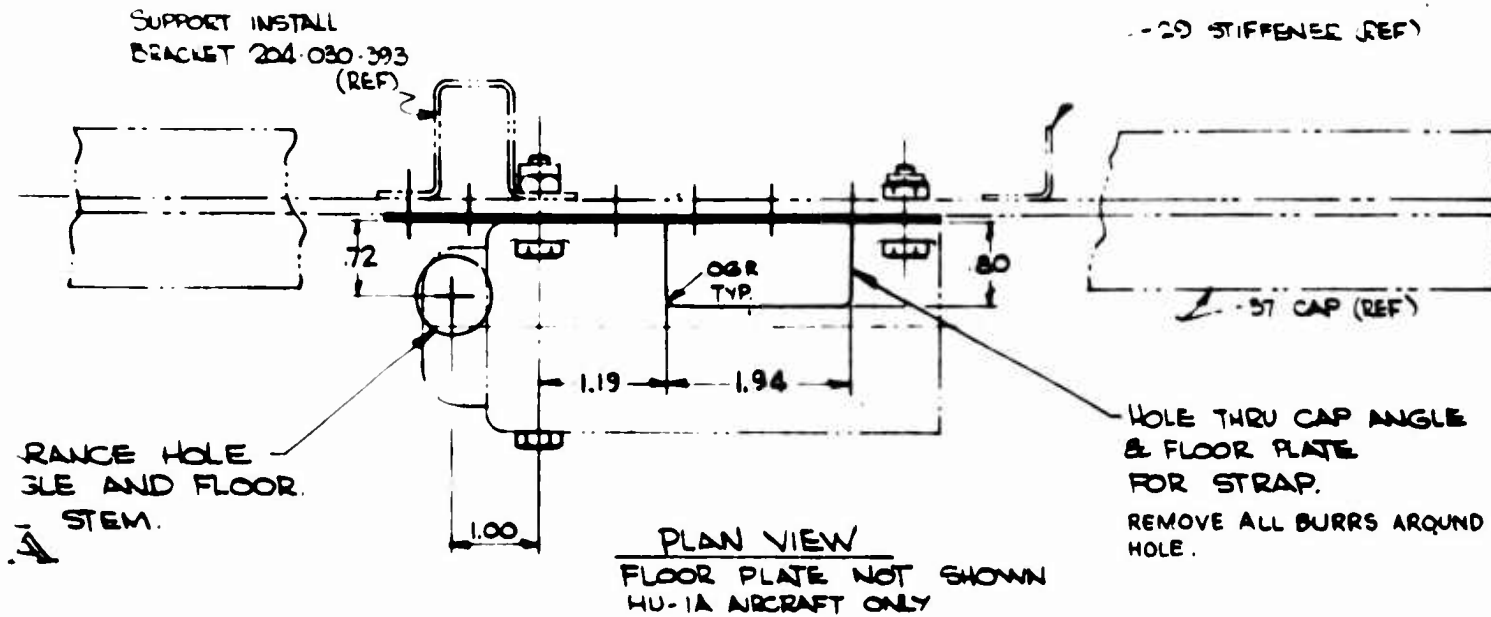
LOOKING FORWARD L.H. SIDE HU-1A AIRCRAFT ONLY



VIEW LOOKING FORWARD
L.H. SIDE STA 66 BLKD
HU-1B AIRCRAFT ONLY
SAME AS HU-1A EXCEPT
AS NOTED

- 3 SYMBOL INDICATES REPLACING EXISTING RIVETS WITH AN 470AD5, DRILL THRU DOUBLERS HU-1-14-1 & 2.
- 2 SYMBOL INDICATES REPLACING EXISTING RIVETS WITH AN 426 AD5, DRILL THRU & CSK (NEAR SIDE) OF DOUBLER HU-1-14-2.
- 1 SYMBOL INDICATES NEW AN 470AD4 RIVET, DRILL THRU DOUBLER HU-1-14-1

NOTES:



SUPPORT INS
204-030-393

THIS BOLT IN
RIVET HOLE

(191) 4 PLACES
BOLT 3 REQ
D1032 4 REQ.

HU-1-14-2
DOUBLER

W.L.
22

A REEL (REF)
PACIFIC SCIENTIFIC CO.

25 BOLT (1 REQD)
D416 WASHER (2 REQD)

PILOT SEAT (REF)

B.L.
24.12 (REF)

B.L.
22 (REF)

B.L.
1881 (REF)

(REF) B.L.
1400

STRAP (REF)

OMIT THIS RIVET

57 CAP (REF)




HU-1-14-1
DOUBLER

55 ANGLE 025 (REF)

HU-1-14-1 DOUBLER

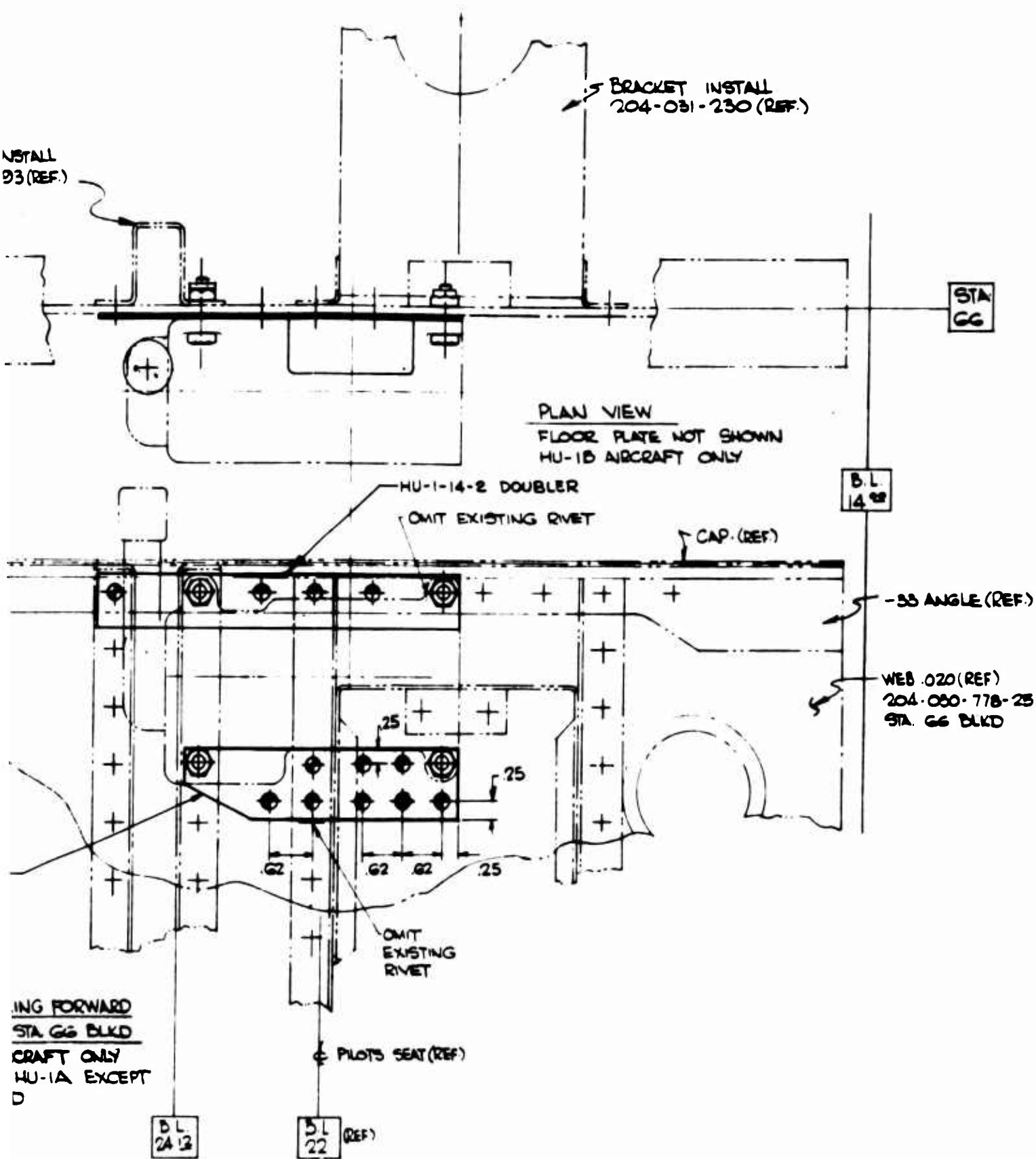
WEB STA 66 BLKD (REF)

VIEW LOOKING
L.H. SIDE ST
HU-1B AIRCRAFT
SAME AS HU-1A
AS NOTED

3.  SYMBOL - AN 470A
2.  SYMBOL - AN 426A DOUBLER
1.  SYMBOL - IN THRU DOUBLER

NOTES

VIEW LOOKING FORWARD L.H. SIDE HU-1A AIRCRAFT ONLY.

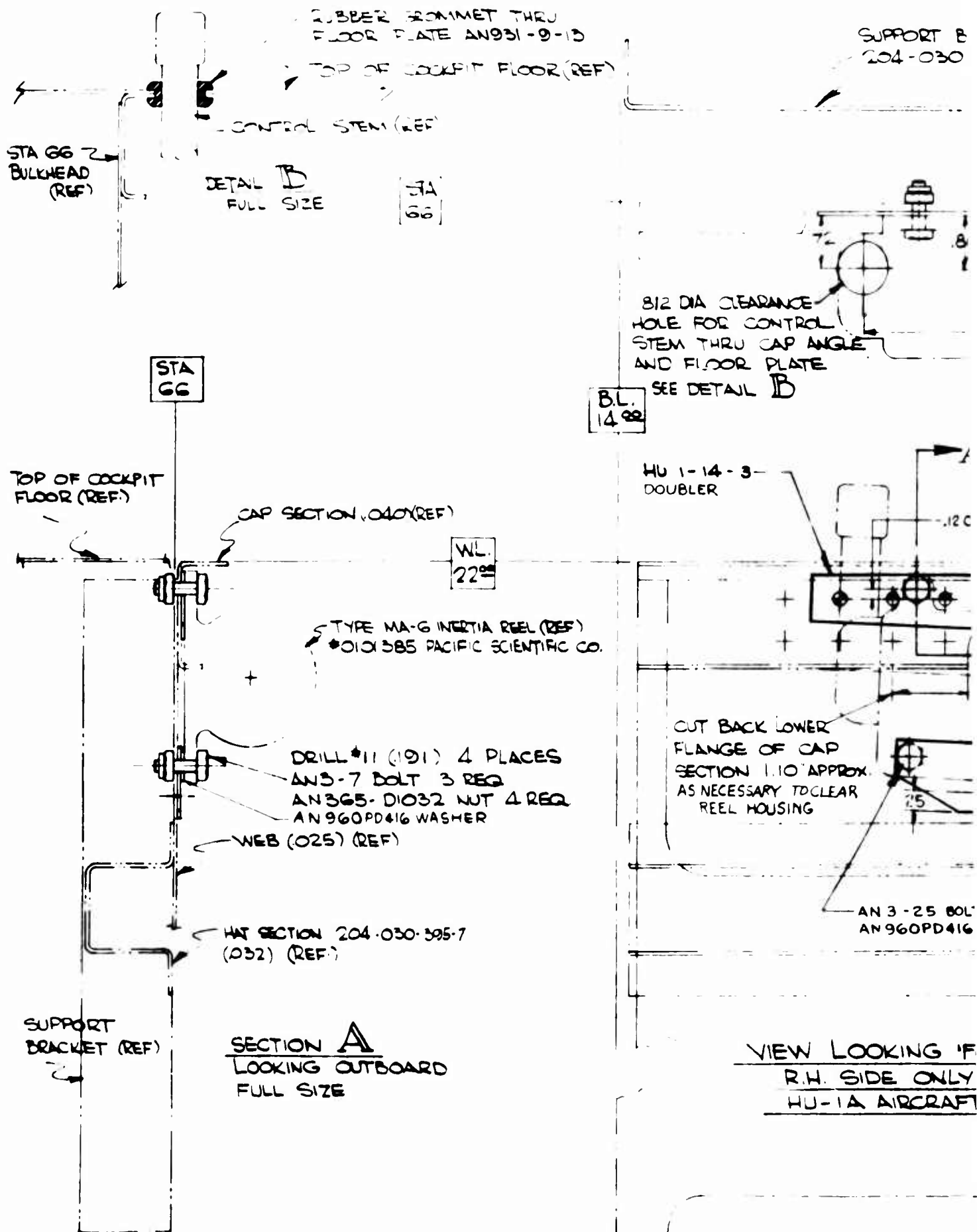


IL INDICATES REPLACING EXISTING RIVETS WITH
AD5, DRILL THRU DOUBLERS HU-1-14-1 & 2.

INDICATES REPLACING EXISTING RIVETS WITH
AD5, DRILL THRU & CSK (NEAR SIDE) OF
R HU-1-14-2.

INDICATES NEW AN470AD4 RIVET, DRILL
DOUBLER HU-1-14-1

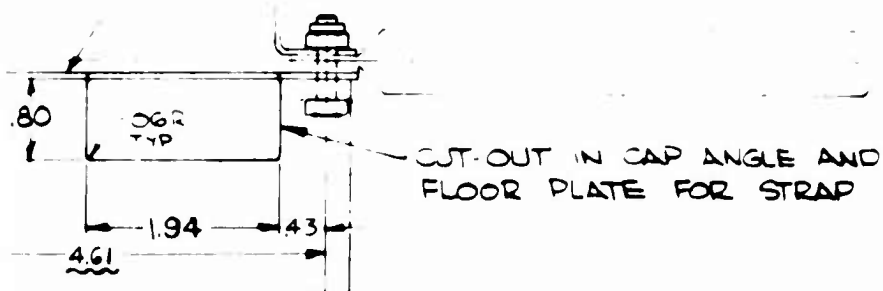
B



A

BRACKET
O-395 (REF)

HU-1-14-3 (REF)

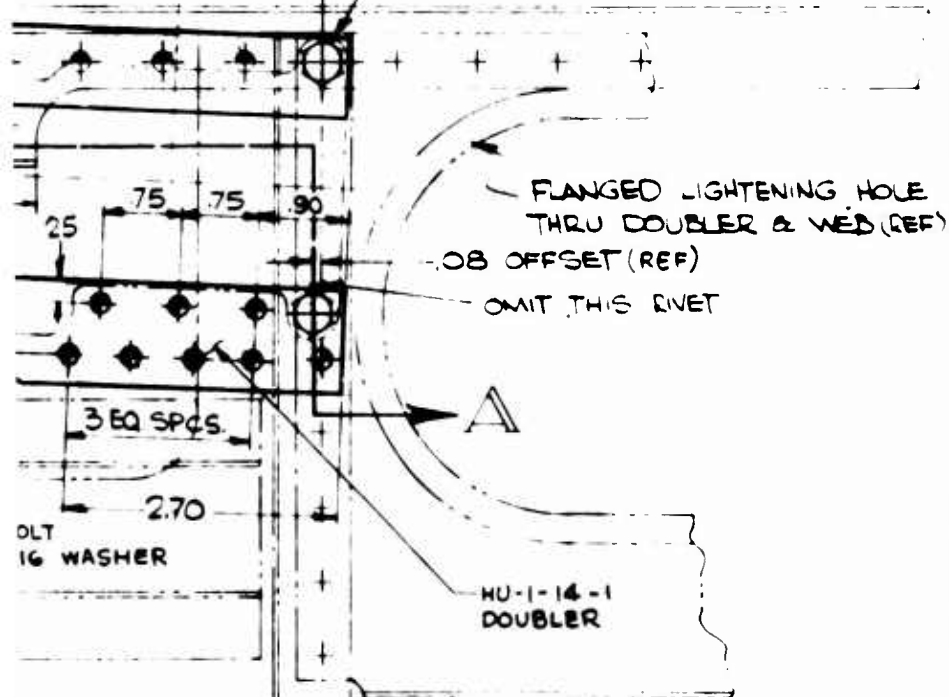


2° (REF) ϕ STRAP (REF) ϕ BOLT

BL 22.12 APPROX LEFT SIDE

2 OFFSET

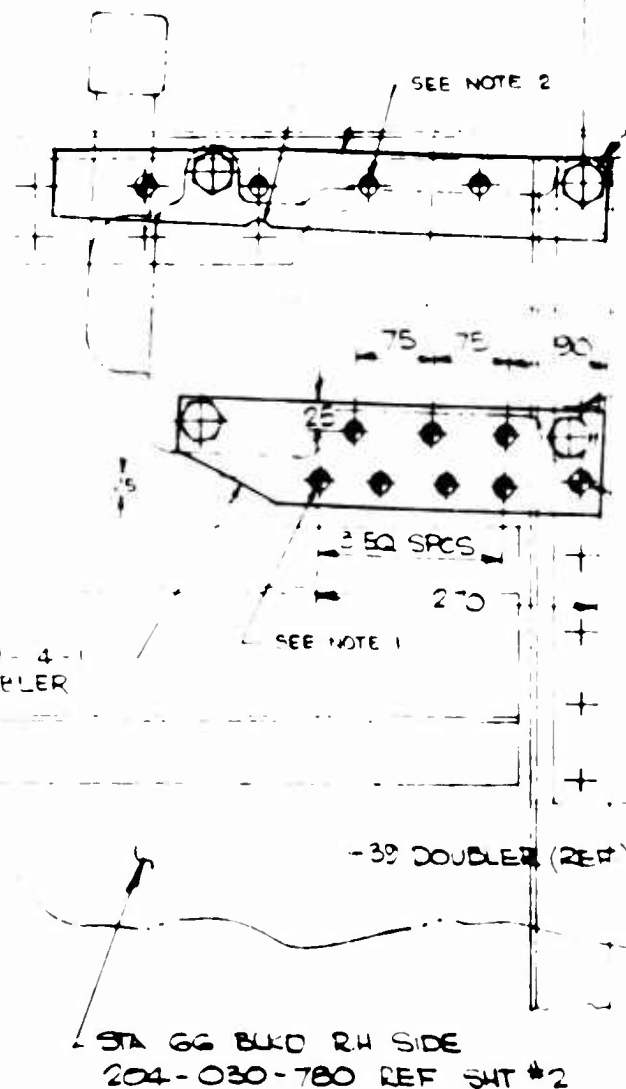
THIS BOLT TO BE LOCATED IN EXISTING RIVET HOLE



HU-1-14-1 DOUBLER

- STA 66 BLKD R.H SIDE
204-030-780 REF SHT #1

FORWARD
Y
FT ONLY

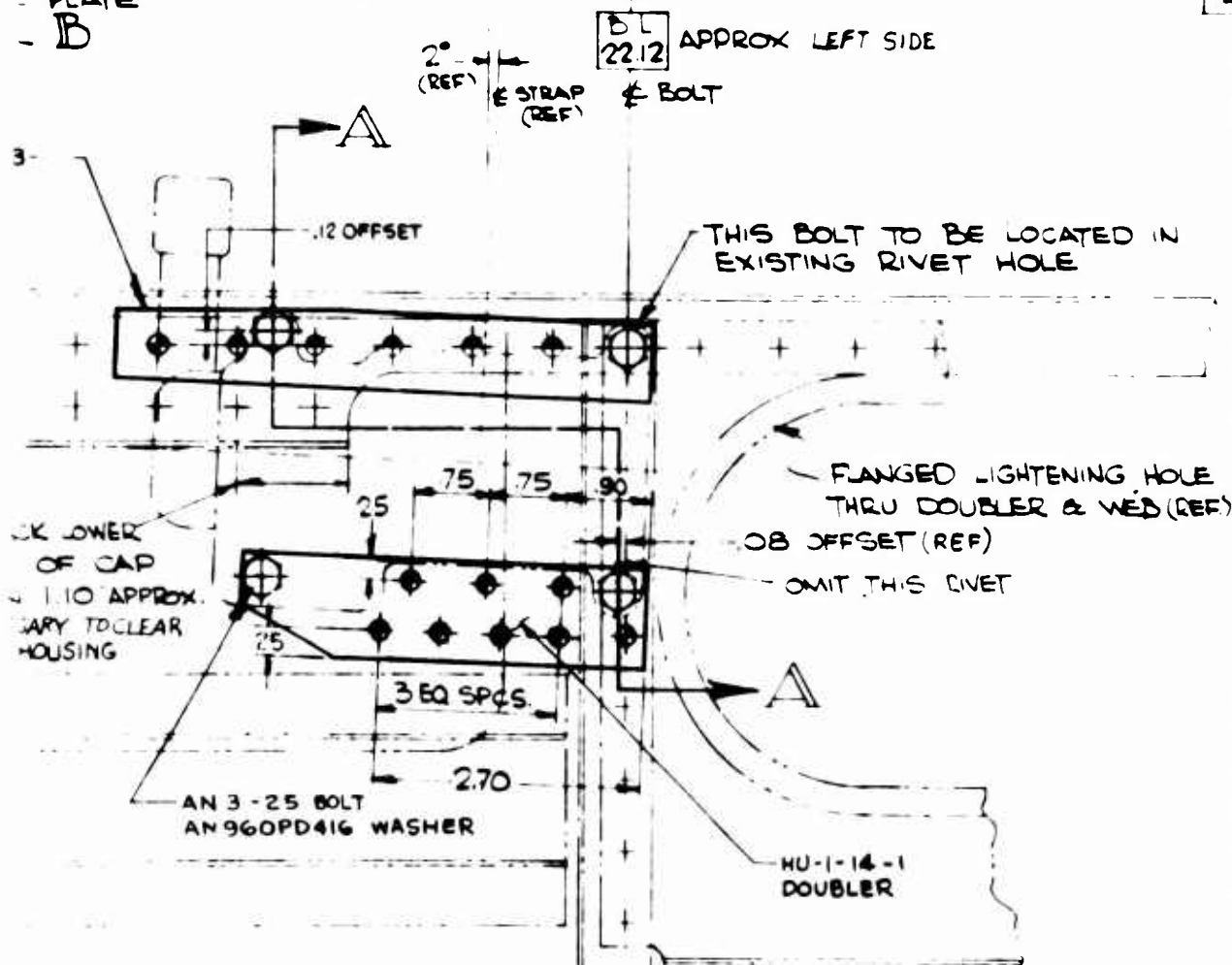
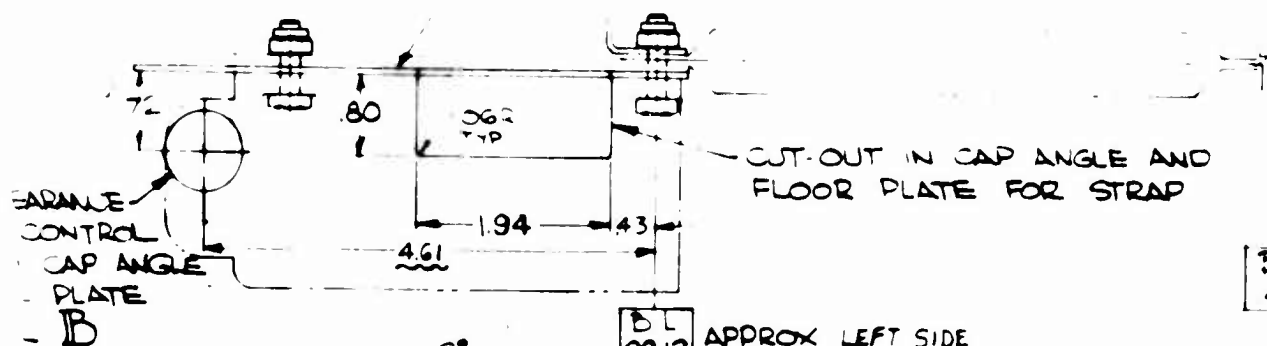


- 3 ϕ SYMBOL INDICATES REPLACING EXISTING RIVETS WITH AN 4 DRILL THRU DOUBLERS HU-1-4-1 & -3.
- 2 ϕ SYMBOL INDICATES REPLACING EXISTING RIVETS WITH AN 42 DRILL THRU & CSK (NEAR SIDE OF DOUBLER HU-1-14-3
- 1 ϕ SYMBOL INDICATES NEW AN 470 AD 4 RIVET, DRILL THRU DOUBLER HU-1-14-1 (AS SHOWN).

NOTES:

SUPPORT BRACKET
204-030-395 (REF)

HU-1-14-3 (REF)



VIEW LOOKING FORWARD
R.H. SIDE ONLY
HU-1A AIRCRAFT ONLY

STA 66 BLKD R.H. SIDE
204-030-780 REF SH#1

3. SYMBOL INDICATES DRILL THRU DOUBLE
2. SYMBOL INDICATES DRILL THRU & CSK
1. SYMBOL INDICATES DOUBLER HU-1-14-1

NOTES:

QUANTITY
 TO REF
 MATERIALS
 REMARKS

B.L. 22.12 APPROX RIGHT SIDE

THIS BOLT TO BE LOCATED
 IN EXISTING RIVET HOLE

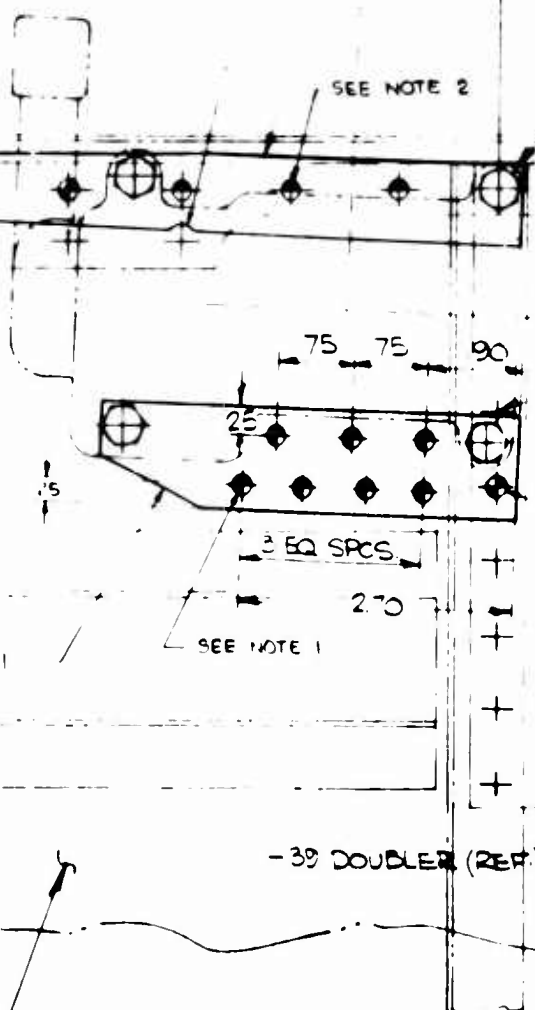
CAP EXTRUSION - 35
 ALCOA # 26846 (REF)

WL 22.12

WEB (025 REF) - 33

OMT THIS RIVET

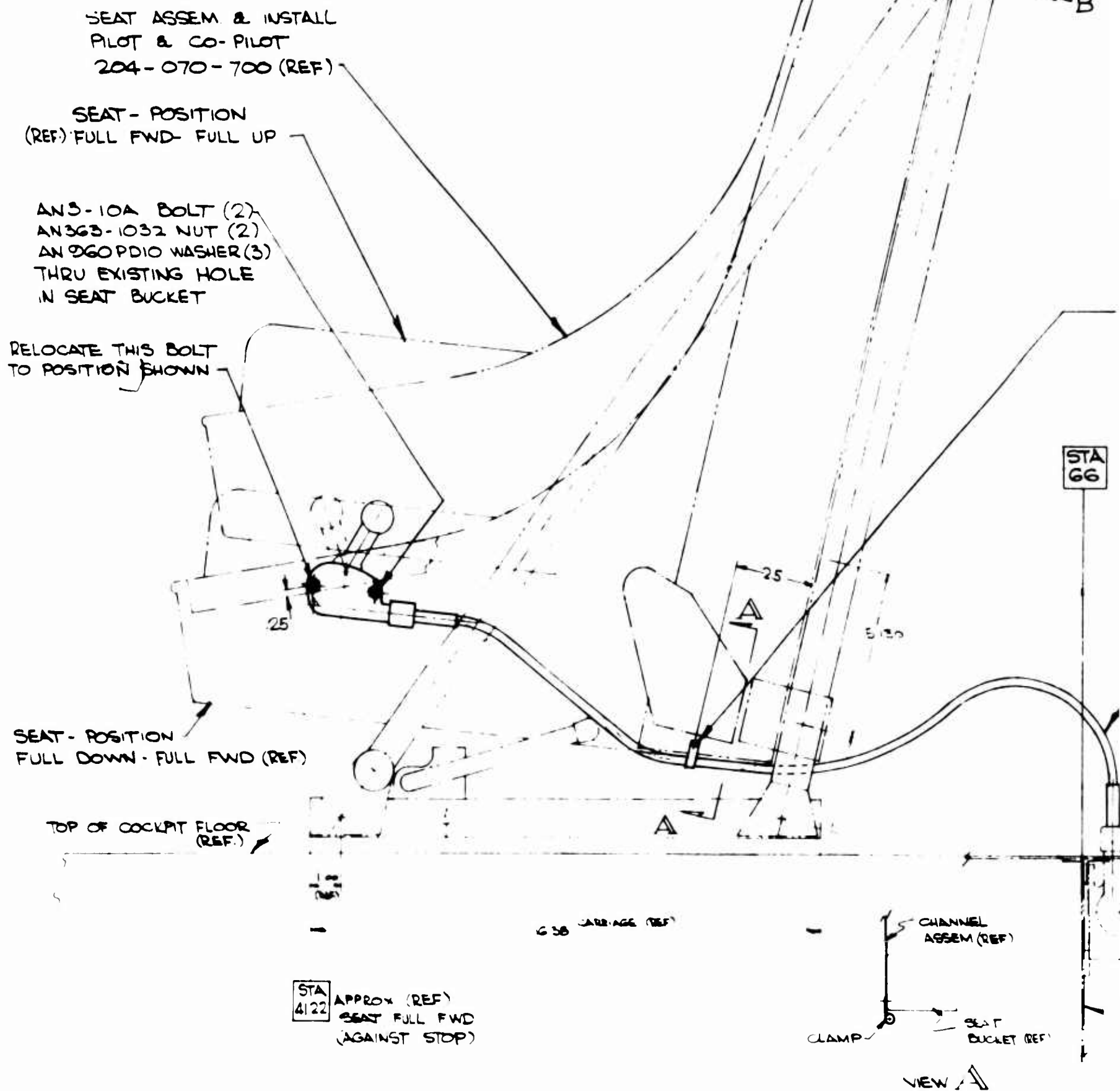
VIEW LOOKING FORWARD
R.H. SIDE ONLY
HU-1B AIRCRAFT ONLY
 (MOUNTING HARDWARE SAME AS HU-1A)

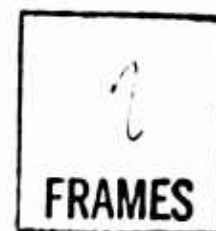


STA 66 BKD R.H. SIDE
 204-030-780 REF SMT #2

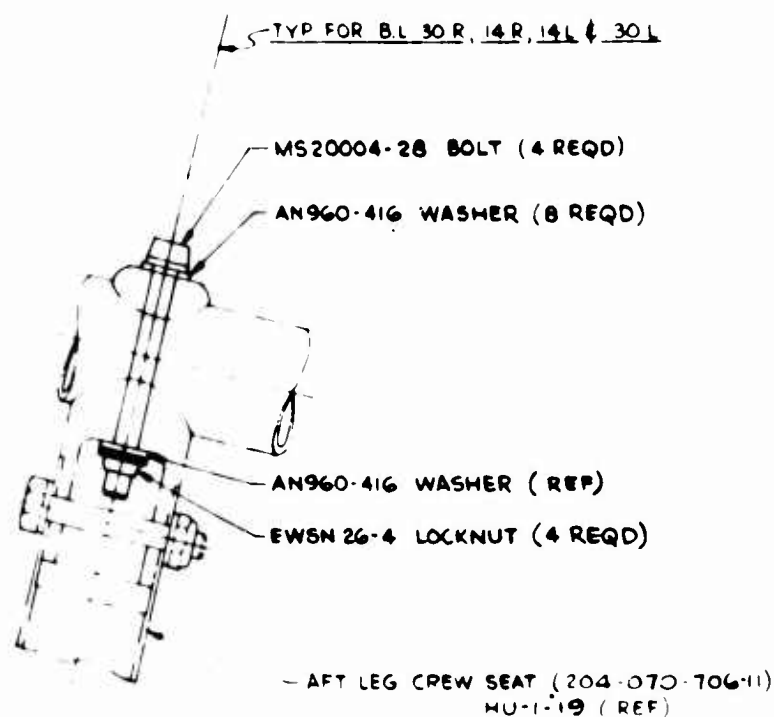
ES REPLACING EXISTING RIVETS WITH AN470ADS,
 LERS HU-1-14-1 & -3.
 S REPLACING EXISTING RIVETS WITH AN426ADS,
 (NEAR SIDE) OF DOUBLER HU-1-14-3
 ES NEW AN470AD4 RIVET, DRILL THRU
 4-1 (AS SHOWN).

B





7B



VIEW B-B

SCALE - 1/2
(REPLACES EXISTING HARDWARE)
LOOKING FWD

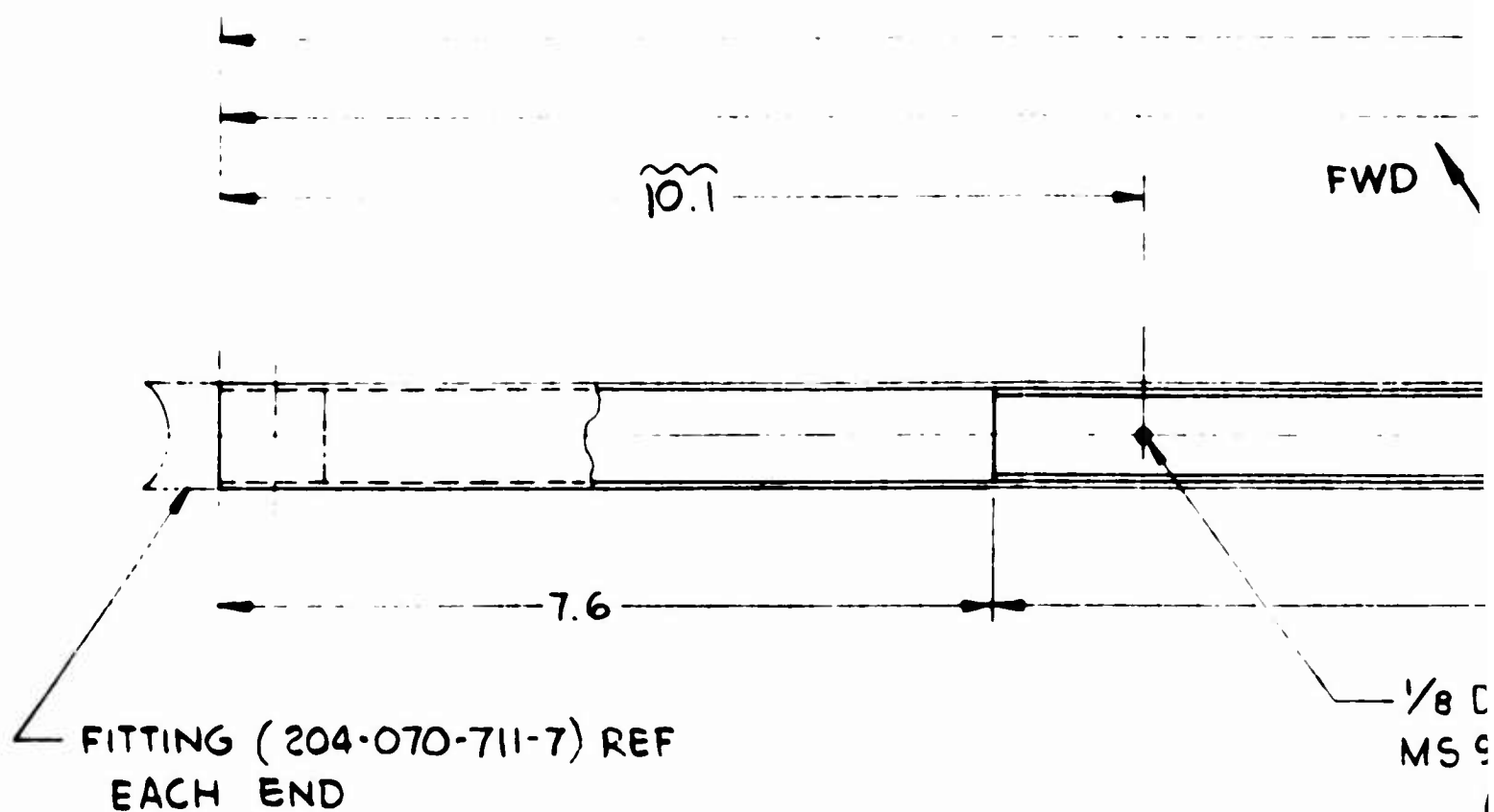
MOVE EXISTING CLAMP
TO THIS LOCATION
AN742 - 4 CLAMP
AN520-10RG SCREW
AN960-416 WASHER
AN363-1032 NUT
(REF)

RELOCATE EXISTING INERTIA CONTROL ASSEM.
TO POSITION SHOWN
PART NO 0101389-09 (REF)
(PACIFIC SCIENTIFIC CO)

W.L
22

INERTIA REEL INSTALLATION
AND FLOOR MODIFICATION
HU-1-16, SHEETS 1, 2 & 3
(REF)

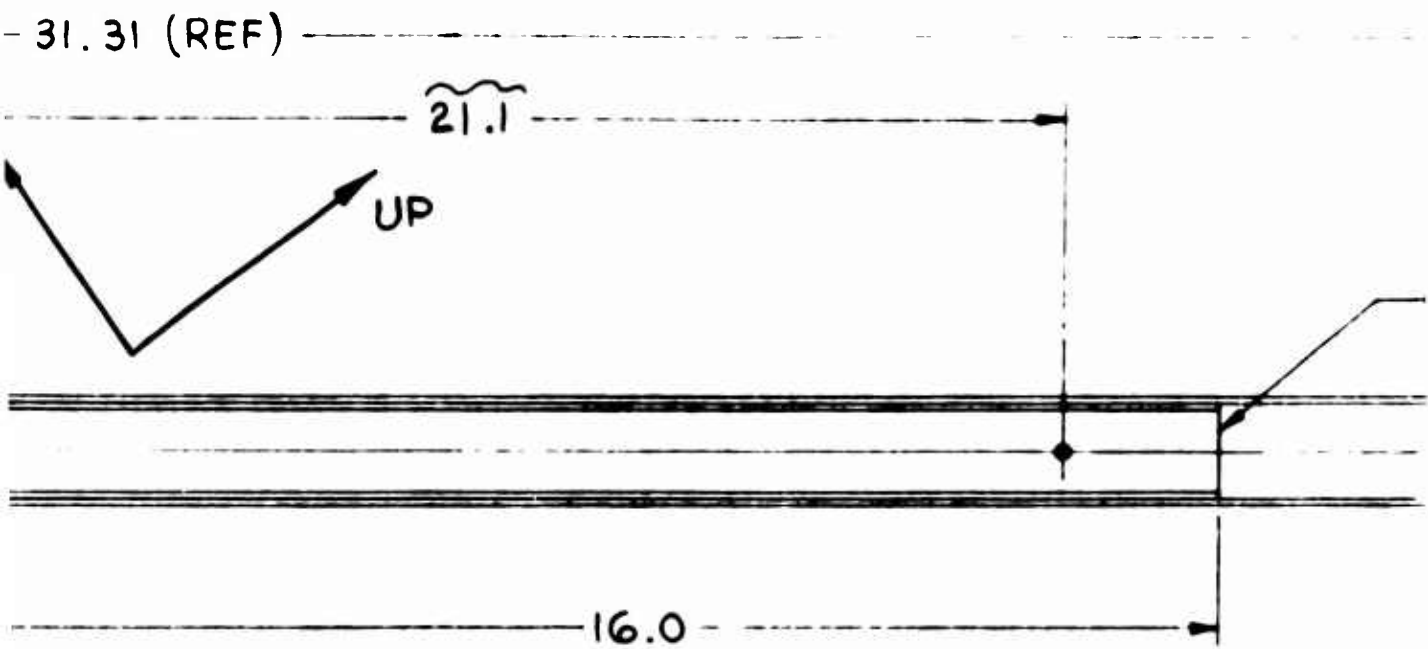
BULKHEAD STA 20
204-030-780 (REF)



FINISH:

ZINC CHROMATE REINFORCEMENT TUBE (DETAIL -1)
ALL OVER BEFORE DRILLING. SPRAY PAINT DRILLED HOLES.

A



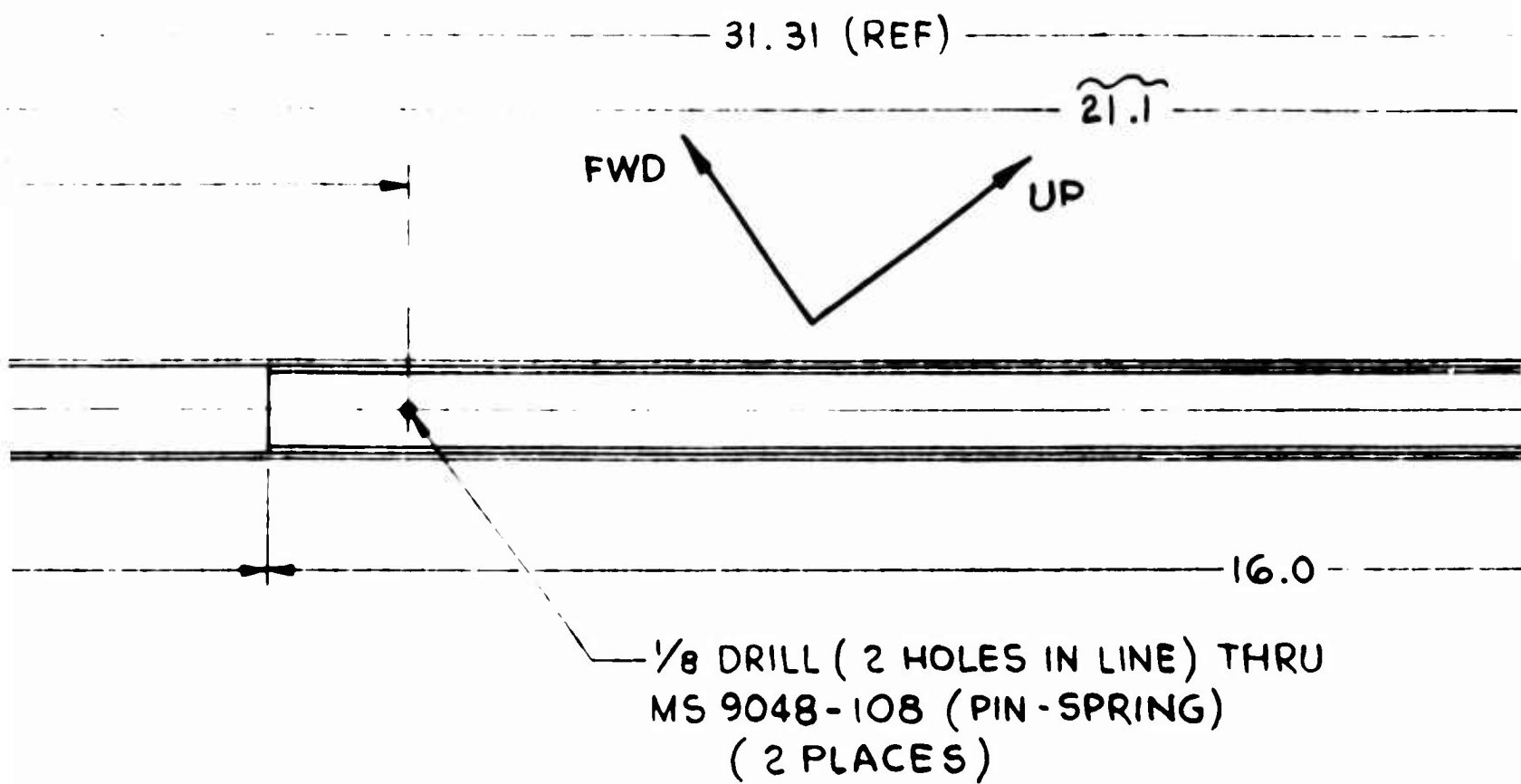
10.1

REF

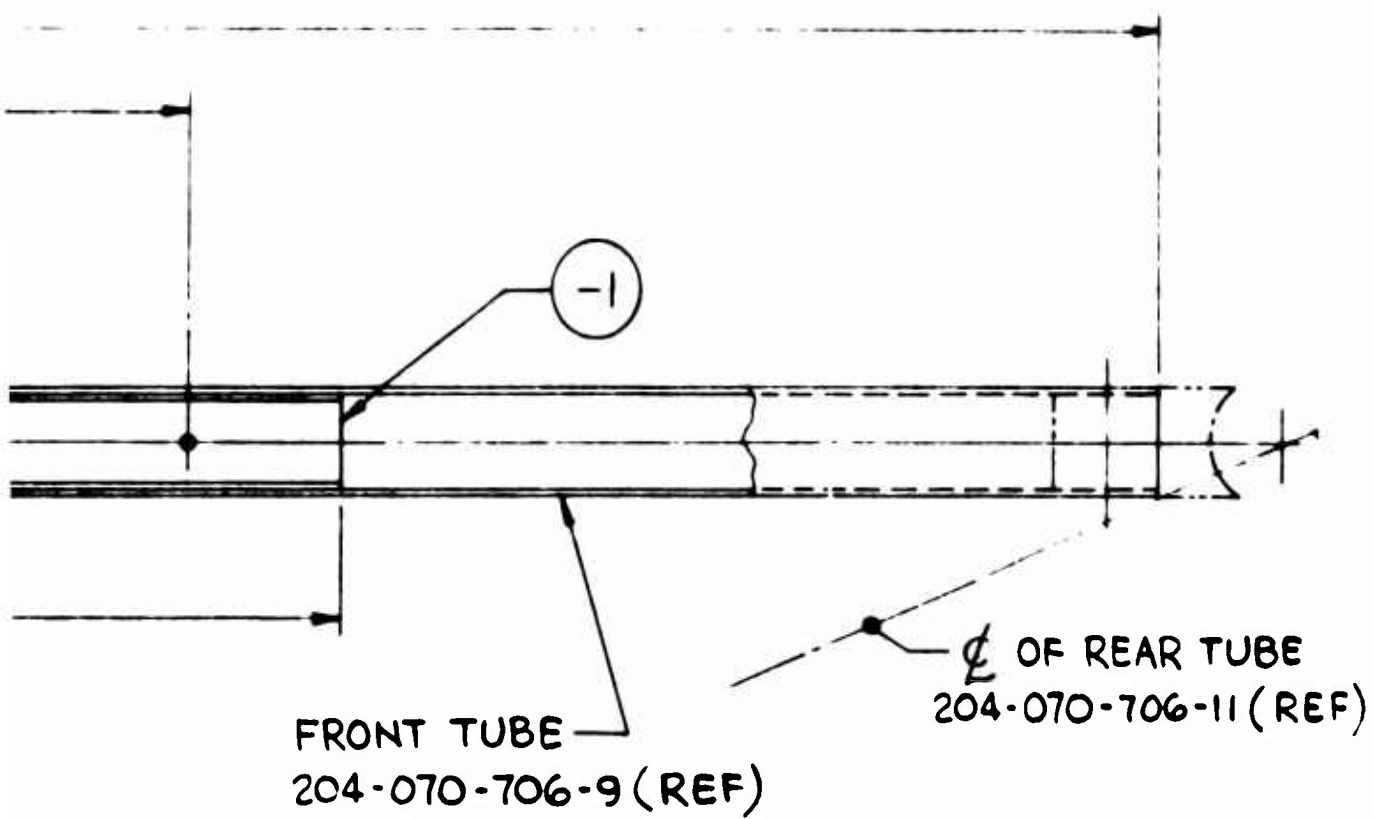
DRILL (2 HOLES IN LINE) THRU
9048-108 (PIN-SPRING)
(2 PLACES)

FRONT TUBE
204-070-706

EMENT
G. SP



T TUBE (DETAIL -1)
PRAY PAINT DRILLED HOLES.



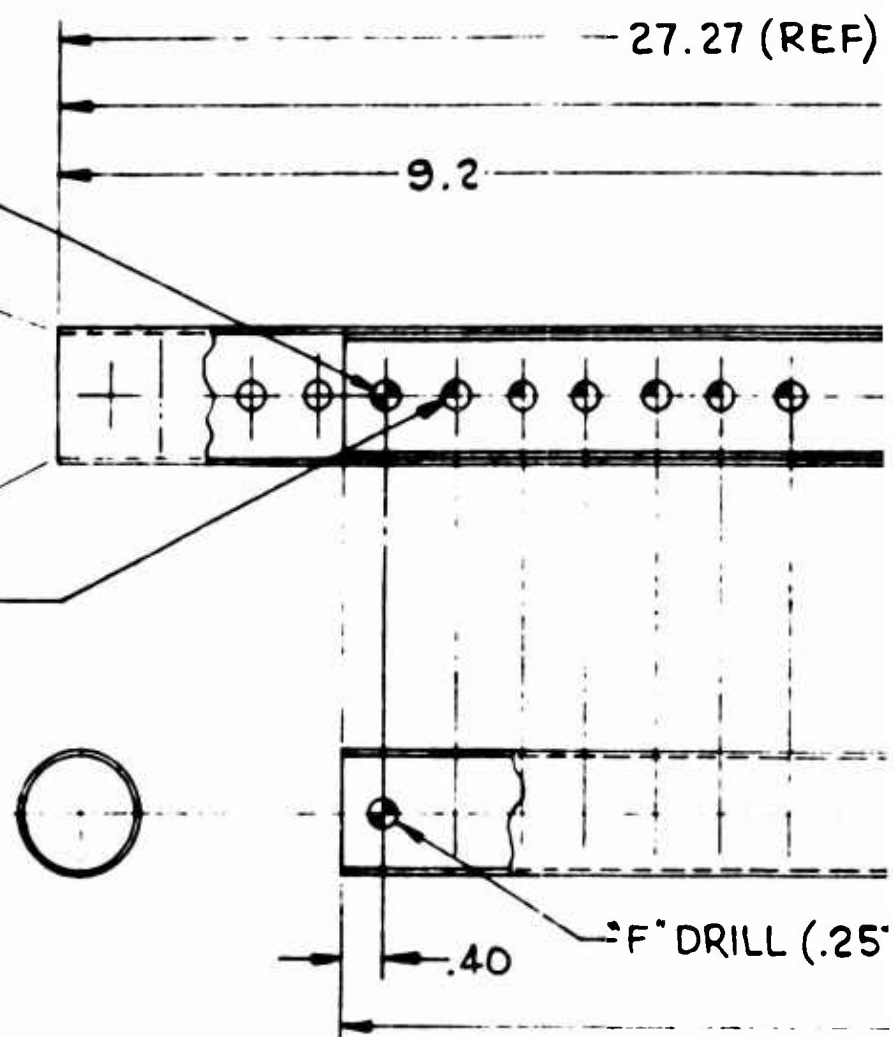
B



ALIGN HOLE "x"
WITH EXISTING
MATING HOLE

FITTING HU-1-12
(REF, MODIF. OF
204-070-742-1)

"F" DRILL (.257) FAR SIDE,
THRU DETAIL-1 ONLY
MATCH EXISTING HOLES
(6 PLACES)



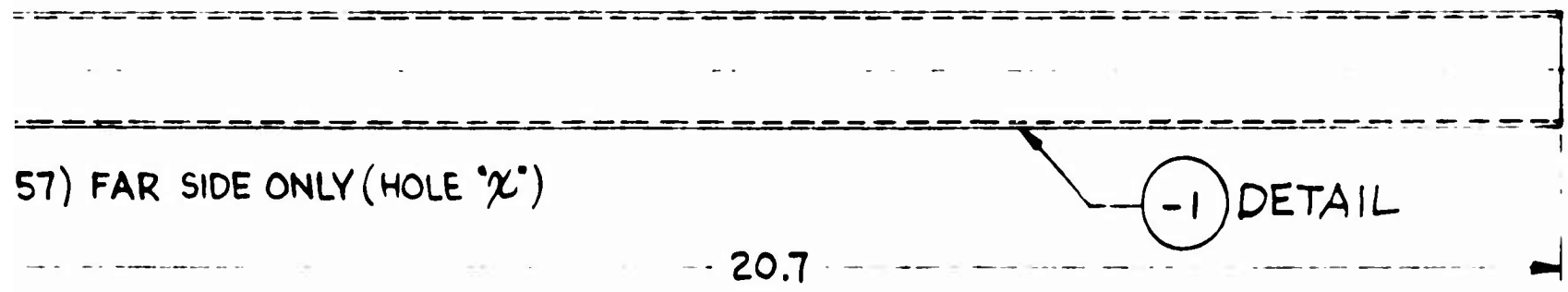
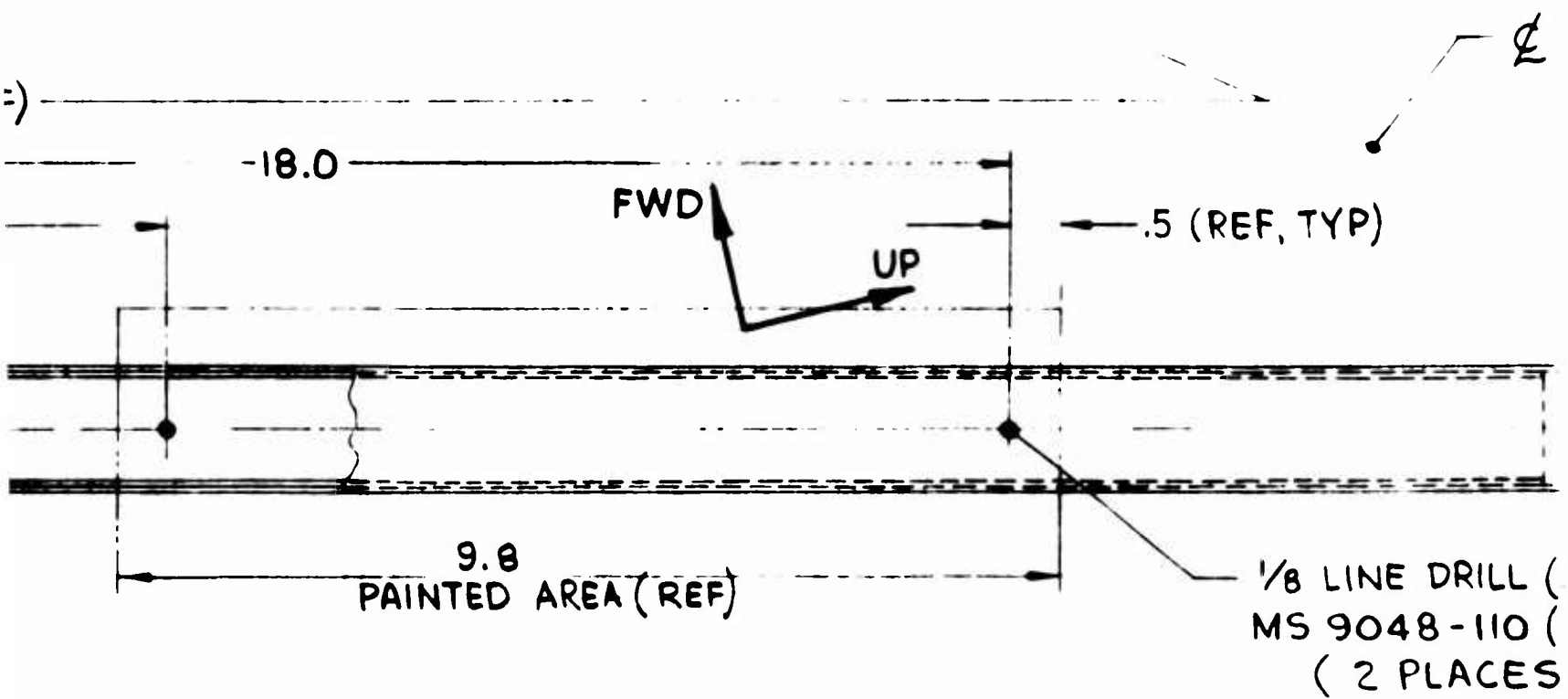
INSTALLATION PROCEDURE

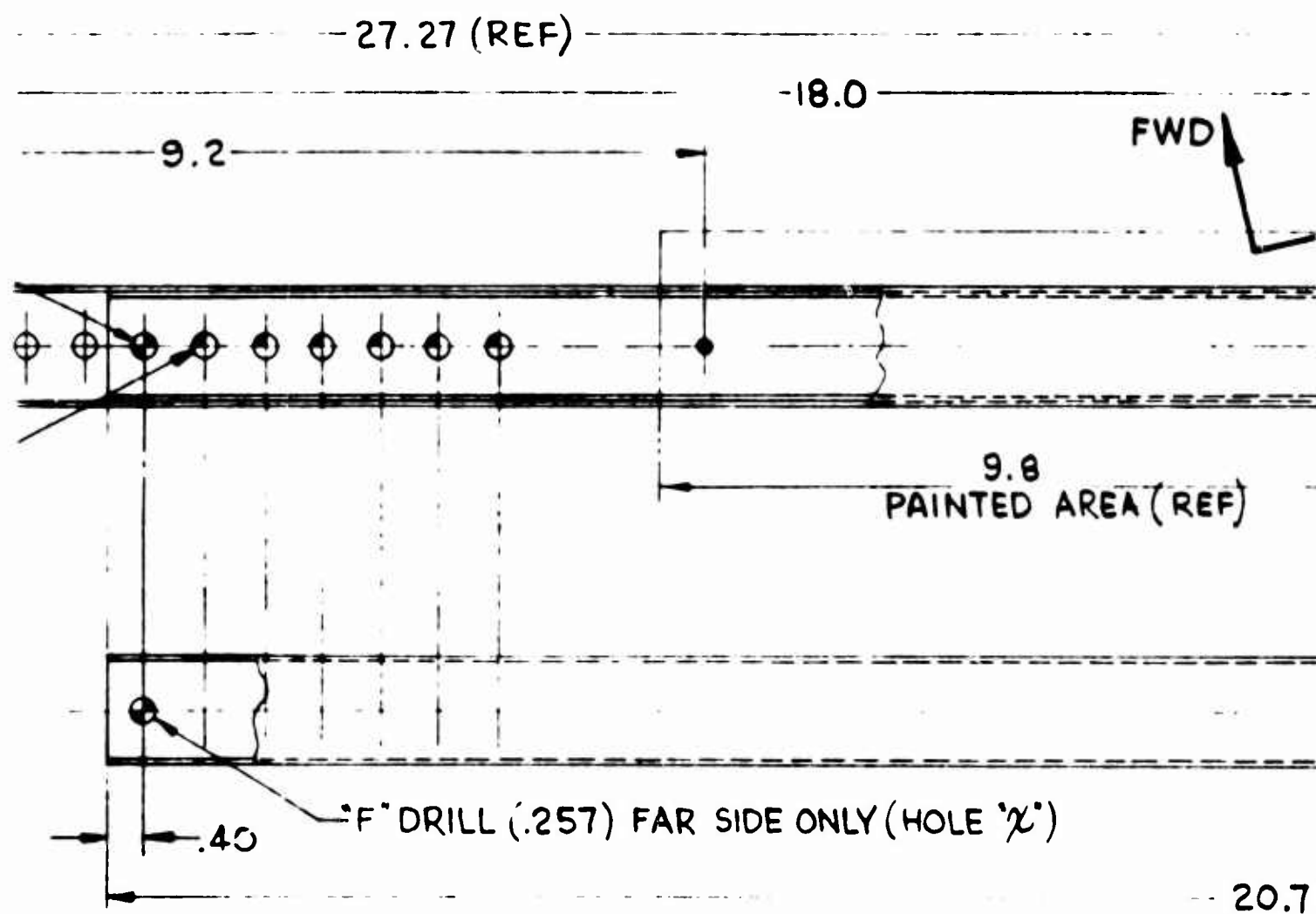
- ALIGN HOLE "x" AS SHOWN
- PIN IN PLACE (2 PLACES).
- MATCH DRILL 6 HOLES AS SHOWN.
- ZINC CHROMATE ALL EXPOSED SURFACES (DUE TO DRILLING)

FINISH:

A

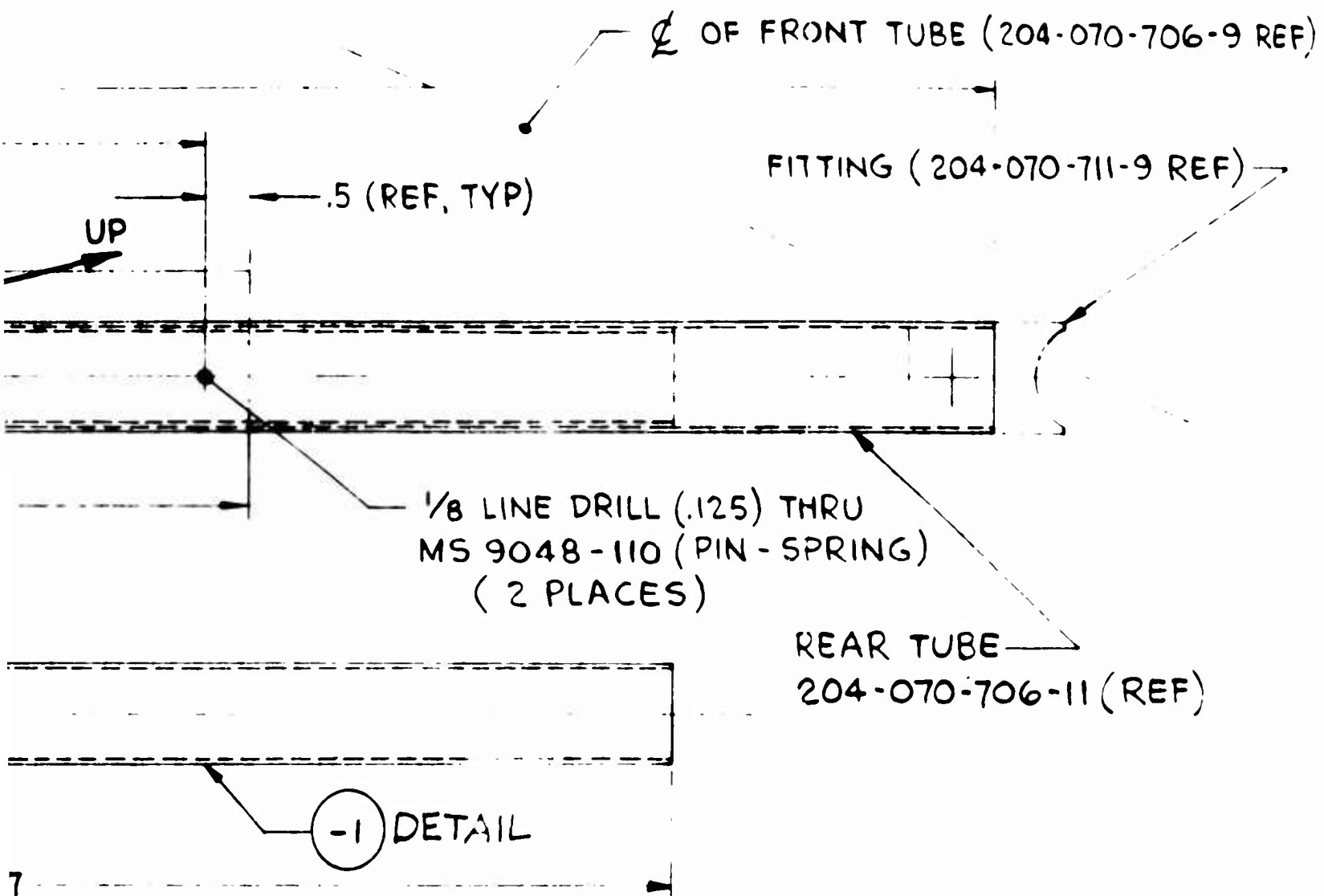
ZINC CHROMATE REINFORCEMENT TUBE
ALL OVER BEFORE DRILLING.





ES (DUE TO DRILLING)

NT TUBE



E

FRAMES

⑤ RADIUS BLOCK
(6 REQD)
(2 AT THIS LOCATION)

45° CHAMFER AS REQD (TYP)

STA 59.22
(APPROX)

BL 30 (RIGHT)

③ RADIUS BLOCK
(16 REQD)
(4 AT THIS LOCATION)

-3 (BLOCK)
(4 AT THIS LOCATION)

STA 59.22
(APPROX)

BL 14 (RIGHT)

-3 (BLOCK)
(4 AT THIS LOCATION)

④ RADIUS BLOCK
(7 REQD)
(3 AT THIS LOCATION)

STA 59.22
(APPROX)

BL 14 (LEFT)

-4 (BLOCK)
(4 AT THIS LOCATION)

-3 (BLOCK)
(4 AT THIS LOCATION)

STA 57.43
(APPROX)

BL 30 (LEFT)

-5 (BLOCK)
(4 AT THIS LOCATION)

WL 22.00

A

NO. 11 DRILL (.191 DIA)
6 HOLES MARKED
AN3-5A BOLT (REF)

5/16 DRILL THRU
(TO CLEAR)

AN3-5A BOLT
AN 960PDIOL WASHER
AN 365-1032 NUT
(32 PLACES)

STA
52.00

DRILL OUT EXISTING RIVET (THRU FLOOR
DOUBLER & BEAM, TYP) AND TRANSFER
5/32 HOLE TO NEW TRACK -1 OF -2.
(6 PLACES, MARKED)
REPLACE WITH AN3-5A BOLTS (REF)

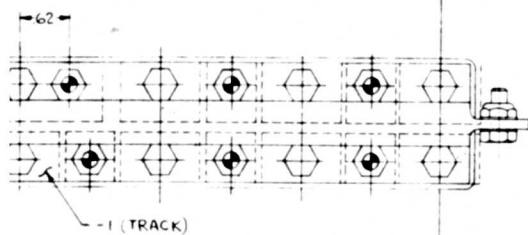
SHIM AS REQD
(USING 204-030-321-113) TYP

-1 TRA
(2 R)

EDGE OF DOUBLER
(204-030-321-29)

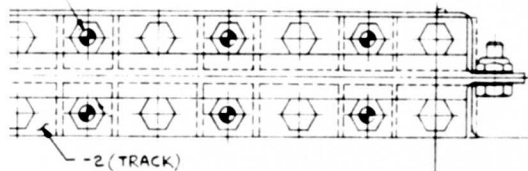
DOOR, MA
(SAME - EXCEPT

RU TRACK BASE ONLY
AR EXISTING RIVET HEAD)



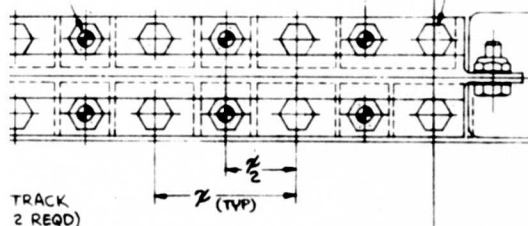
FWD

STA
61.86

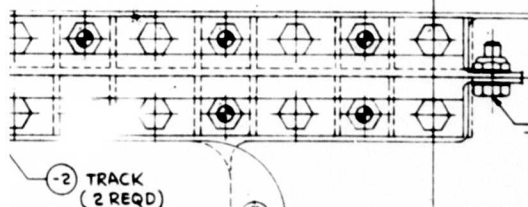


AFTER LOCATING HOLES AS SHOWN
DRILL 1/8 PILOT HOLES IN TRACK.
POSITION TRACK IN PLACE (USING
AT LEAST 4 BOLTS ON EACH TRACK)
THEN DRILL THRU TRACK, FLOOR,
DOUBLER & BEAM USING NO. 11 DRILL
(.191 DIA) 26 PLACES MARKED.

EXISTING BOLTS
USE AT LEAST 4
TO LOCATE TRACK
BEFORE FINAL
MATCH DRILLING.
(EACH TRACK)

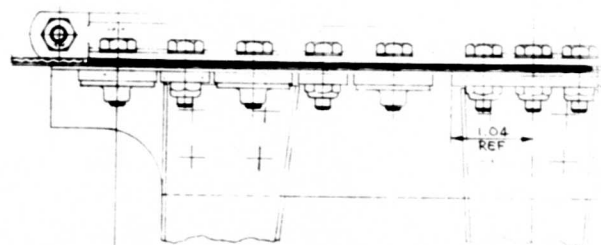


EDGE OF FLOOR (204-030-321-25



EXISTING PARTS
(AN3-5A BOLT, 4 REQD.
AN960PDIOL WASHER, 8 REQD.
AN363-1032 NUT, 4 REQD)

MAKE FROM 204-030-321-33 OR -45
PT 5.03 WAS 4.02)



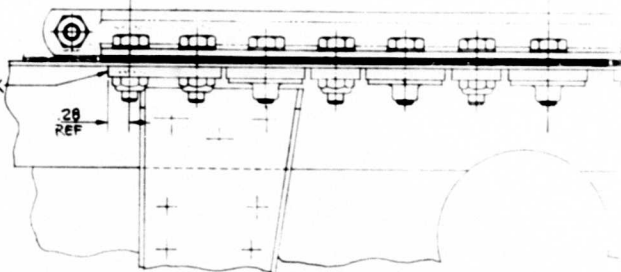
VIEW A-A BL 30 (RIGHT)
(LOOKING INBOARD)
ROTATED 90° CCW

STA
61.86

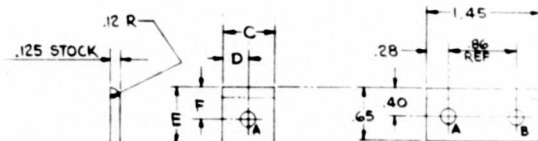
STA
56.55

FWD

⑥ RADIUS BLOCK



VIEW B-B BL 14 (LEFT)
(LOOKING OUTBOARD)
ROTATED 90° CCW



(TYP END VIEW) DETAILS
-3 THRU -7 -3 THRU -5

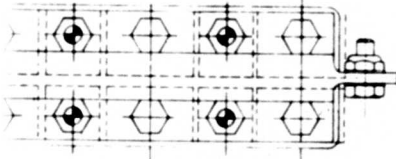
DETAIL -6

HOLE 'A' = .196 DIA
HOLE 'B' = .190 DIA

DASH NO.	DIM 'C'	DIM 'D'	DIM 'E'	DIM 'F'
- 3	.66	.33	.65	.35
- 4	.66	.33	.65	.40
- 5	.66	.33	.75	.45

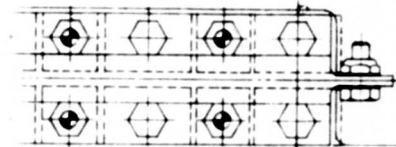
BLOCK-RADIUS DETAILS -3 THRU -

ONLY
(ET HEAD)



K)

STA
61.86



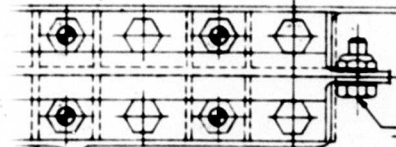
ING HOLES AS SHOWN
OT HOLES IN TRACK.
ACK IN PLACE (USING
BOLTS ON EACH TRACK)
THRU TRACK, FLOOR,
BEAM USING NO. 11 DRILL
6 PLACES MARKED.

EXISTING BOLTS
USE AT LEAST 4
TO LOCATE TRACK
BEFORE FINAL
MATCH DRILLING.
(EACH TRACK)



$\frac{7}{2}$ (TYP)

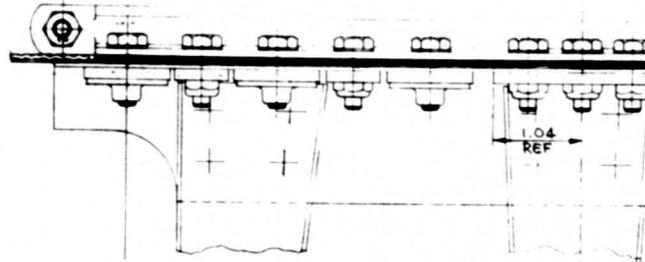
OR (204-030-321-25



EXISTING PARTS
(AN3-SA BOLT, 4 REQD,
AN96OPDIOL WASHER, 8 REQD,
AN363-1032 NUT, 4 REQD)

30-32-33 OR -45

L)



VIEW A-A BL 30 (RIGHT)
(LOOKING INBOARD)
ROTATED 90° CCW

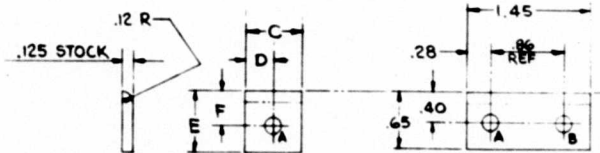
STA
61.86

STA
56.55

FWD



VIEW B-B BL 14 (LEFT)
(LOOKING OUTBOARD)
ROTATED 90° CCW



(TYP END VIEW)

-3 THRU -7

DETAILS

-3 THRU -5

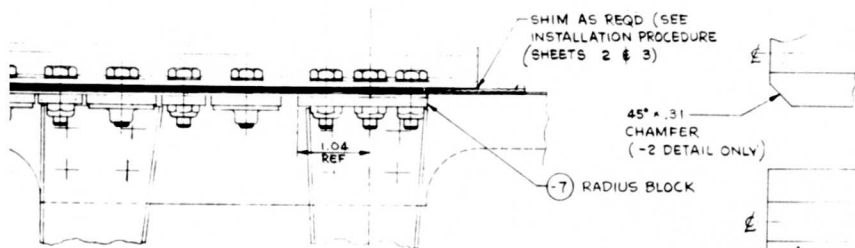
DETAIL -6

HOLE 'A' = $\frac{.196}{.190}$ D

HOLE 'B' = $\frac{.196}{.190}$ D

DASH NO.	DIM 'C'	DIM 'D'	DIM 'E'	DIM 'F'
- 3	.66	.33	.65	.35
- 4	.66	.33	.65	.40
- 5	.66	.33	.75	.45

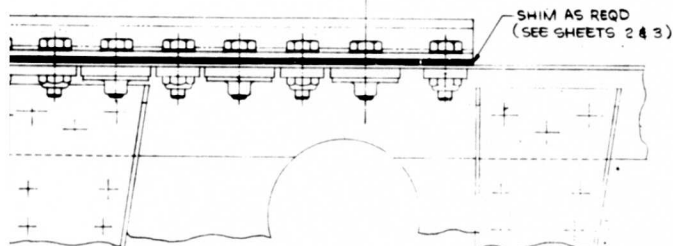
BLOCK-RADIUS DETAILS -3 THRU



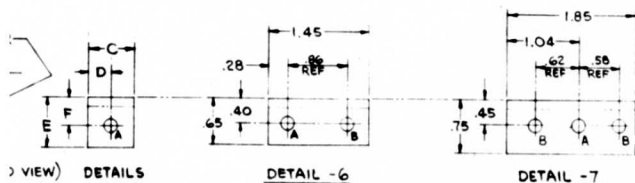
VIEW A-A BL 30 (RIGHT)
(LOOKING INBOARD)
ROTATED 90° CCW

STA
56.55

FWD →



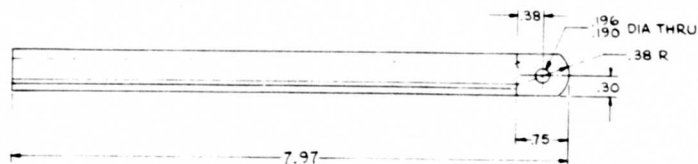
VIEW B-B BL 14 (LEFT)
(LOOKING OUTBOARD)
ROTATED 90° CCW



HOLE 'A' = .196 DIA THRU ON DETAIL

HOLE 'B' = .196 DIA THRU, MATCH DRILL AT ASSY

DIM 'C'	DIM 'D'	DIM 'E'	DIM 'F'
.66	.33	.65	.35
.66	.33	.65	.40
.66	.33	.75	.45



TRACK-REAR DETAILS -1 & -2

DETAILS -1 & -2 SAME EXCEPT -2 HAS CHAMFER

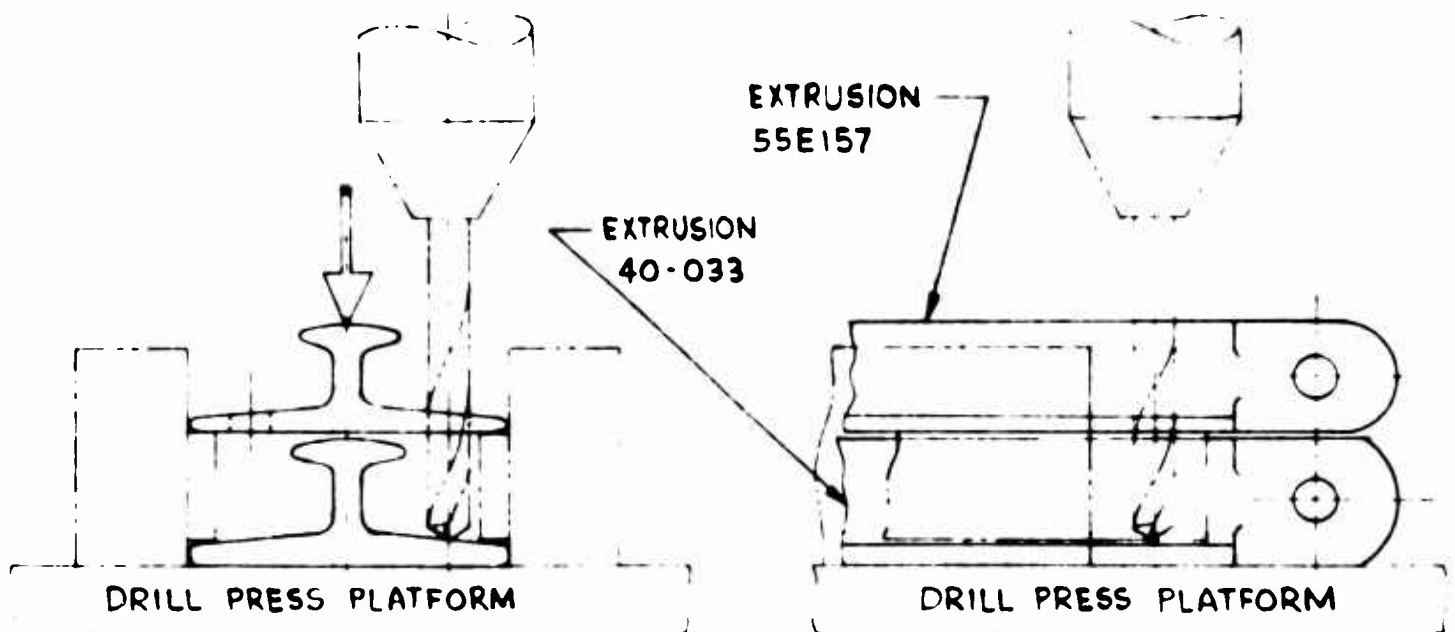
△ TOTAL LENGTH OF NEW REAR TRACKS WEIGH	.807 LBS
" " " EXISTING REAR TRACKS WEIGH	.573 LBS
	.234

B




CK-RADIUS DETAILS -3 THRU -8

(FOR INSTALLATION PROCEDURE)
(SEE SHEETS 2 & 3.)

1. **Installation Procedure - Aft Seat Tracks (Bell Std. Extrusion 40-033)**
Identify and remove existing tracks (Extrusion 55E157) and match drill new tracks (Extrusion 40-033) as illustrated:



The above sketch illustrates one method of match drilling the parts, any method which ensures a perfect match of the hole pattern is acceptable. This step is very important since it will guarantee that the new tracks are located in the identical position of the existing tracks.

2. Identify each newly drilled track, for its intended location, for example: B. L. 30L and
3. Drill out existing rivets in floor beams in the locations indicated by the symbol  to 5/32 dia. as pilot holes.
4. (a) Drill out and remove existing nutplate (22 NA-17A-02) and radius block (204-030-165-9) at B. L. 14 (left), Station 61.86.
 (b) Drill out and remove existing nutplate (NAS 680 A3) and radius block (204-030-165-5) at B. L. 30 (right), Station 56.55.
5. Position new tracks and secure snugly with at least four existing bolts and nutplates. Holes marked  to be located from beam to track and holes marked  to be checked for clearance under the beam caps.
6. Remove tracks, and pilot drill (.125 dia.) all eight new holes in each track as shown.

7. a. Due to the increased length of the new tracks, about .75 inch will overhang the embossed flooring. This may require insertion of laminated aluminum shims (.8 x 1.5) between flooring and track to insure tracks will be straight after tightening all bolts.
- b. The new tracks are .085 higher than existing tracks. The shims and fillers may be removed from under the existing rear tracks to adjust the new tracks to the same height of forward tracks, if feasible. A suggested method is the removal of the phenolic spacers (.062 thick) and .023 of the laminated shims at B.L. 30 R, 14 R, and 30 L. At B.L. 14L remove the phenolic spacer (.093 thick) and add .008 of laminated shims.

If this method is not feasible (due to clearance of floor sheet cut-outs around the tracks), the adjustment can be made by removing some spacers from the rear tracks and adding similar spacers to the forward tracks. The top of all tracks must be in the same plane within .020 in. to insure that the seat will move without binding.

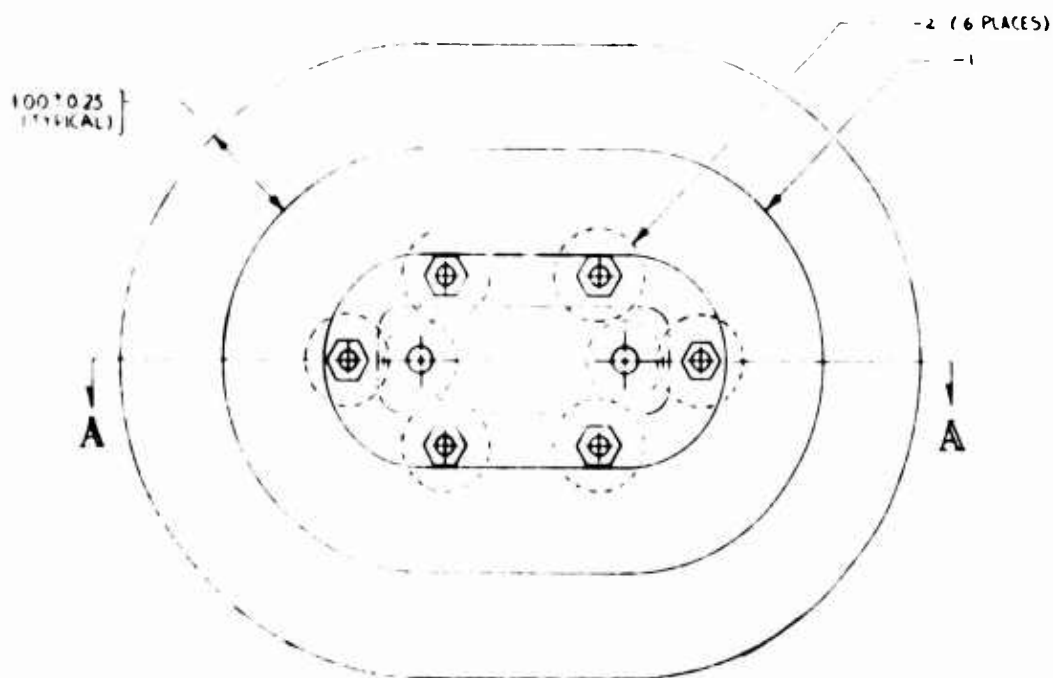
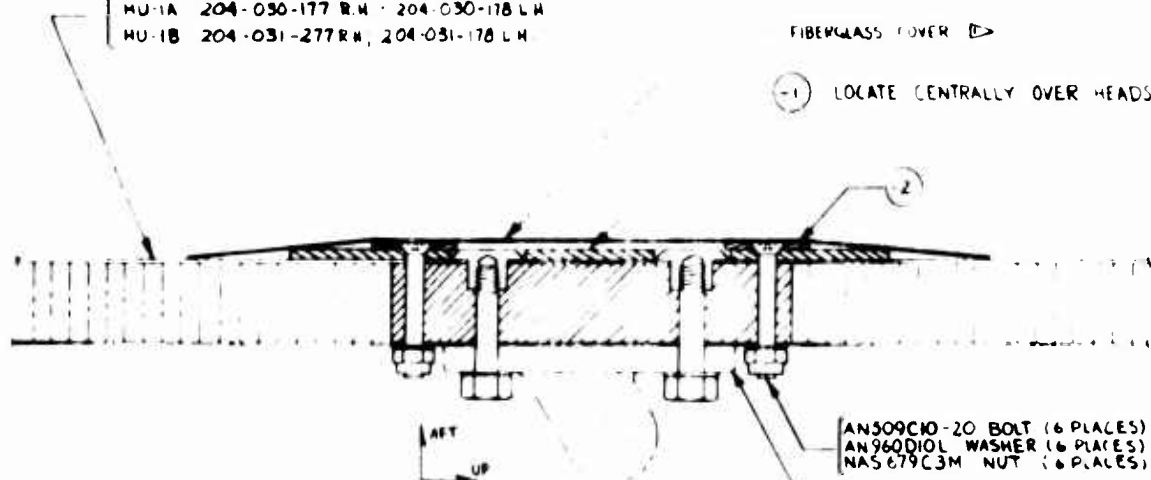
8. Reposition tracks and shims and drill eight No. 11 (.191) dia. holes through the track pilot holes and underfloor beam caps.
9. Remove track, deburr and clean, dip bottom portion of track in zinc chromate solution (cover all machined surfaces). Also spray paint the drilled holes in the underfloor beam caps.
10. Install tracks using necessary shims and spacers as noted. Caution! Do not overtorque the .19 dia. bolts.

1
RES

HONEYCOMB PANEL (REF)
HU-1A 204-030-177 R.H. 204-030-178 L.H.
HU-1B 204-031-277 R.H. 204-031-178 L.H.

FIBERGLASS COVER

-1 LOCATE CENTRALLY OVER HEADS OF EXISTING FASTENERS

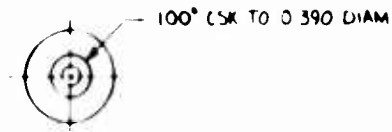


▷ TOTAL WEIGHT CHANGE
HU-1A +1.56 LB
HU-1B +0.78 LB

▷ USE ANY AVAILABLE FIBERGLASS MATERIAL,
IMPREGNATE CLOTH AND BOND TO BULKHEAD
USING EPOXY RESIN.

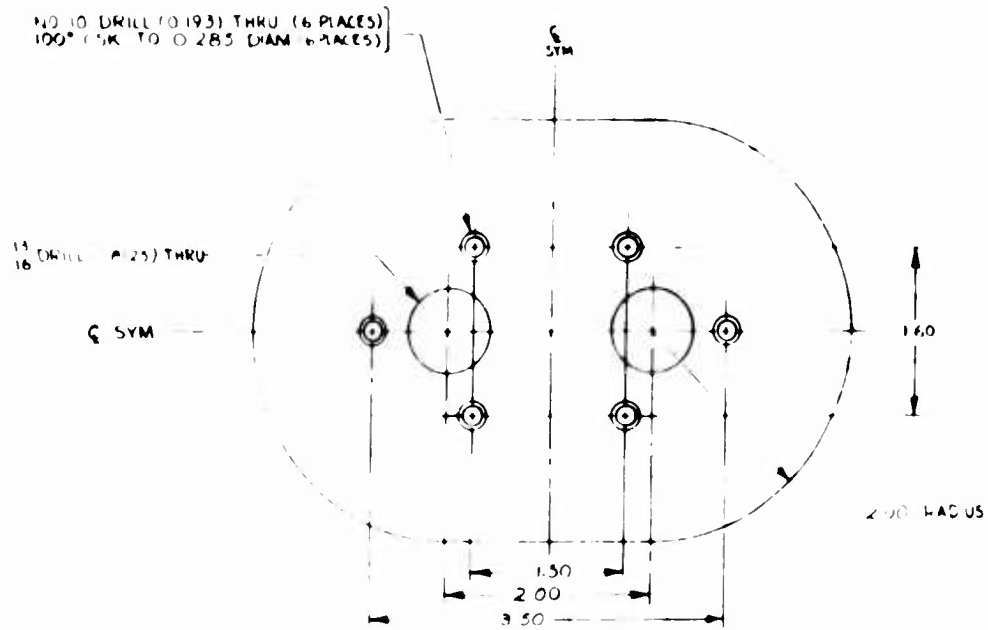
2 BOND -1 REINFORCING PLATE
AND BOND -2 WASHER TO
USE EPON 815 ADHESIVE,

1 MODIFY HU-1A 4 PLACES
AND B.L. 3962 R.H. &
MODIFY HU-1B 2 PLACES
(W.L. 3268)



DETAIL -2

FASTENERS

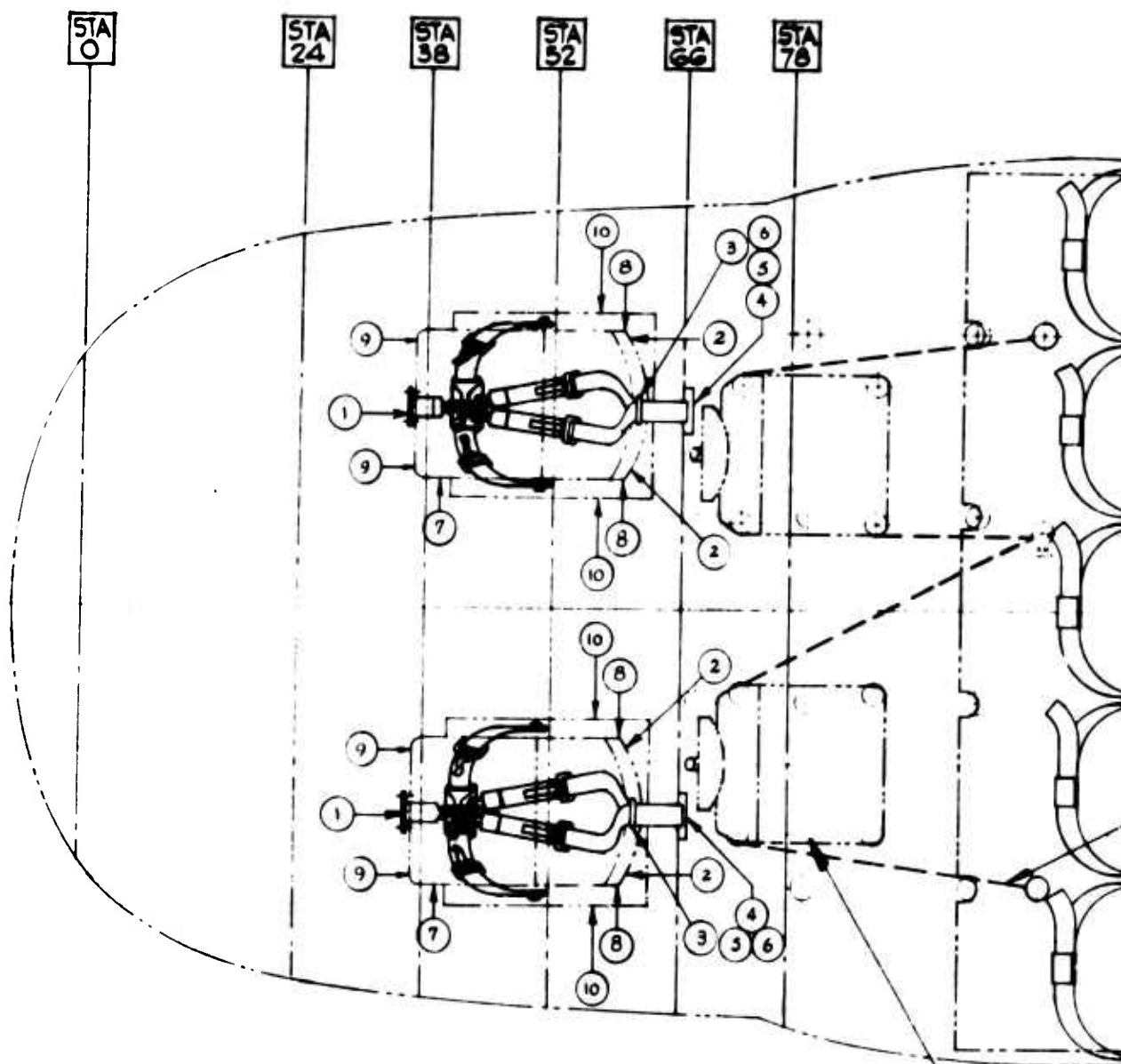


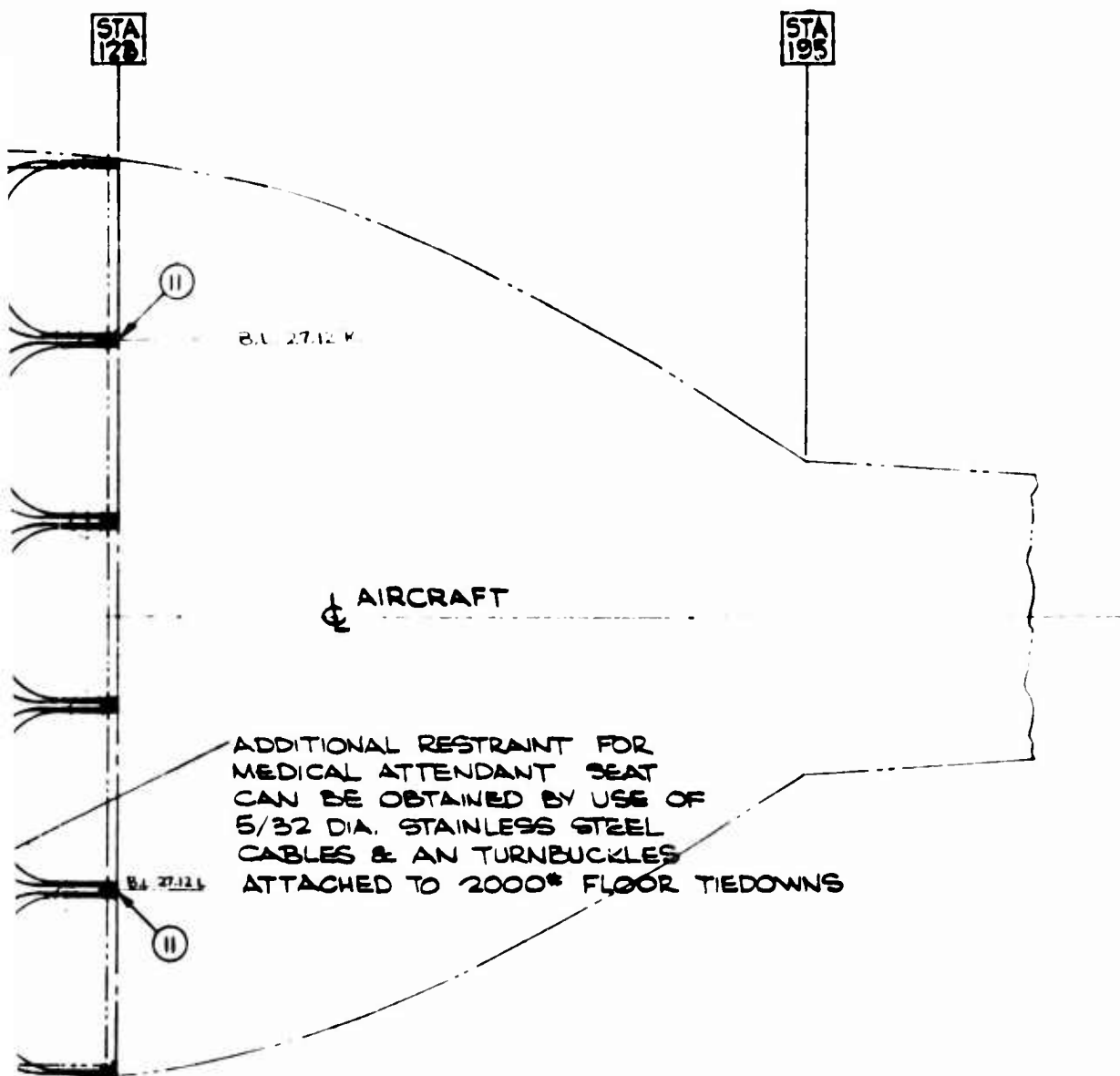
DETAIL -1

PLATE TO AFT BULKHEAD SKIN
R TO -1 PLATE, ON ASSEMBLY
1/8", OR EQUIVALENT

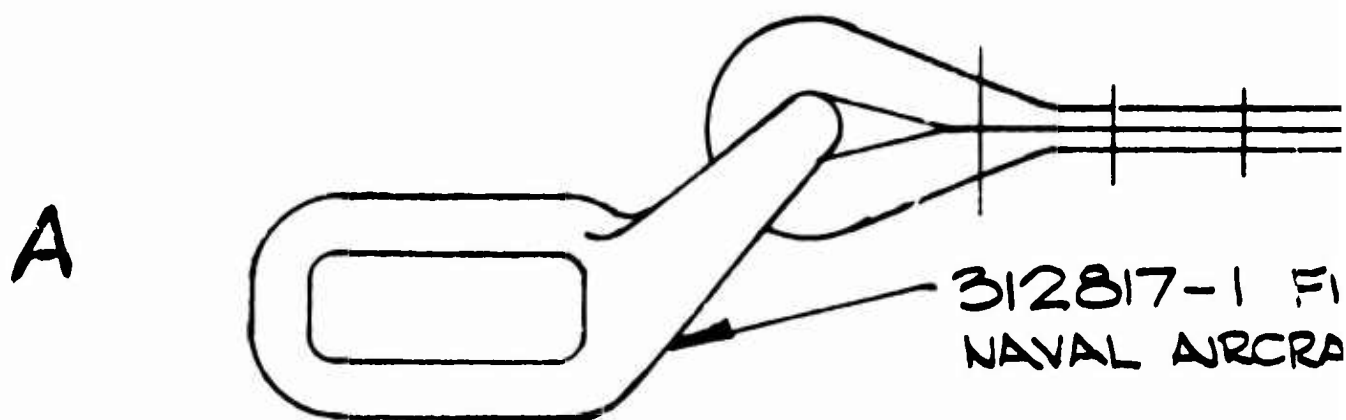
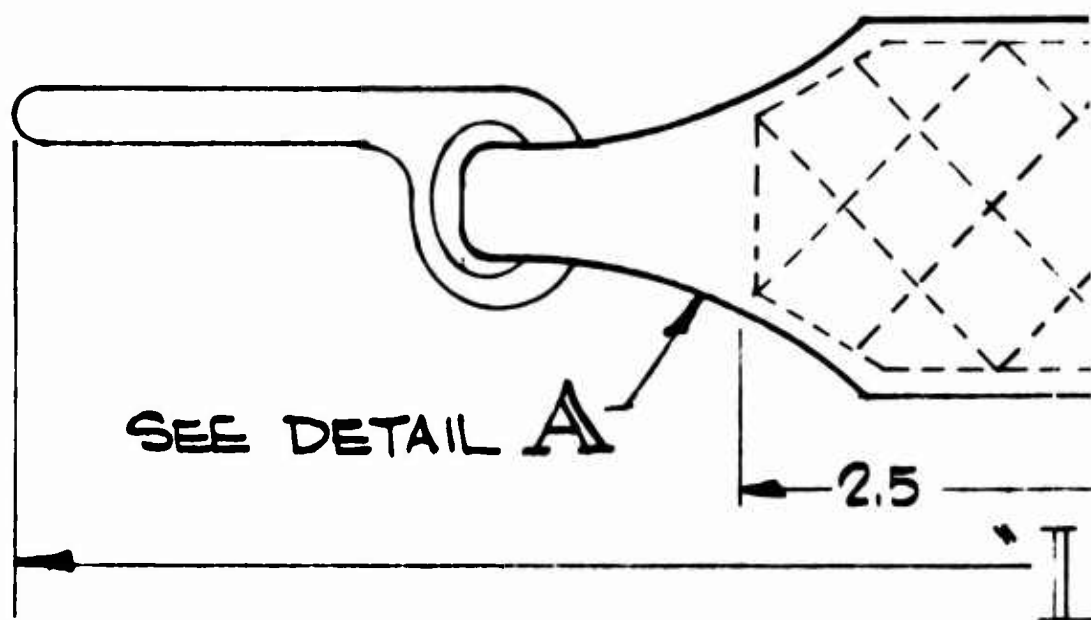
ACES, BL 20.00 RH & LH
1.8 LH (WL 30.93)
ACES, BL 27.12 RH & LH

FRAMES

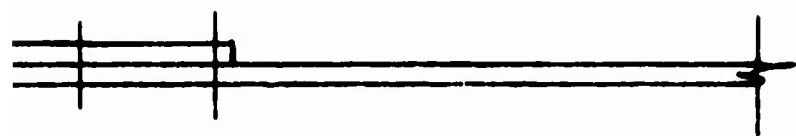
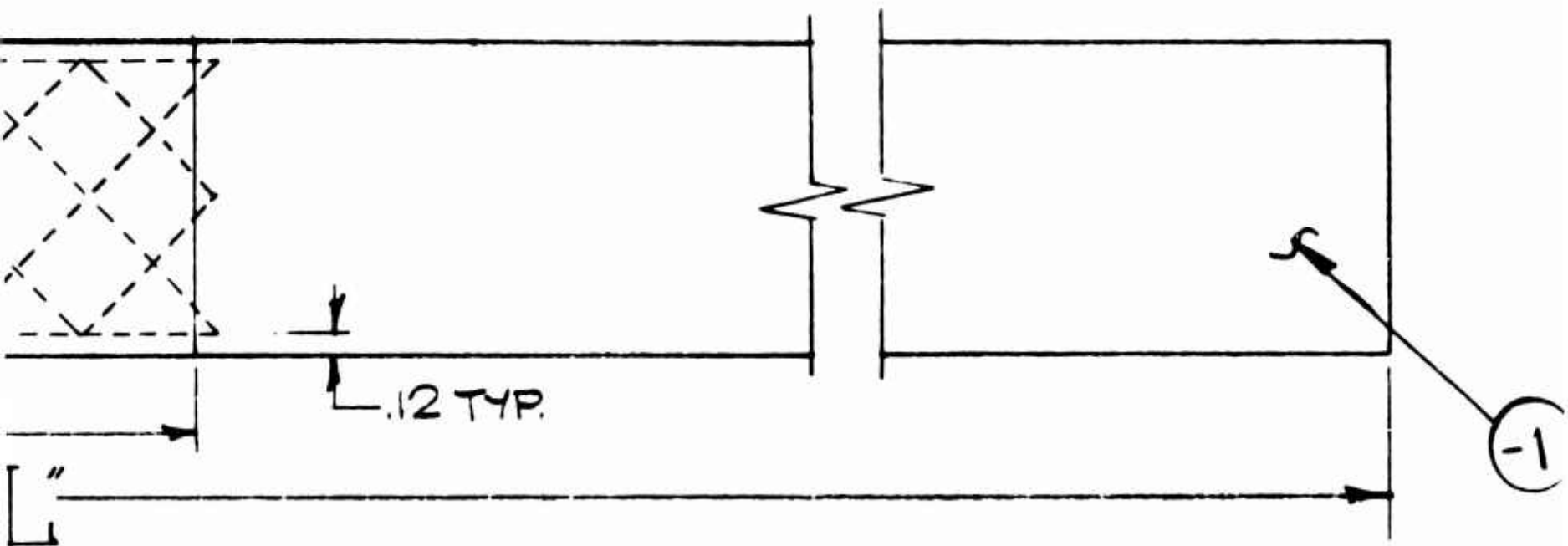




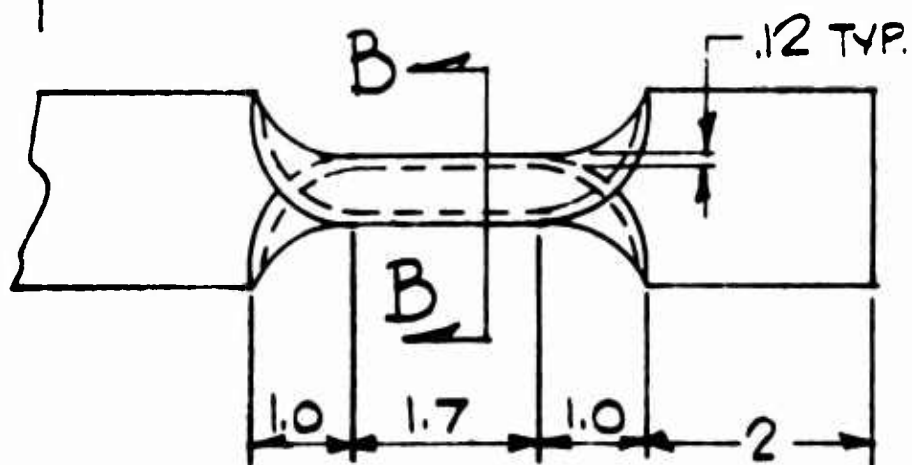
MEDICAL ATTENDANT SEATS
ONLY WITH LITTERS



5. DACRON WEBBING TYPE II PER SPEC.
.065 - .085 THICK X 1.72 WIDE MAX.
WT. 2.10 OZ. / YD. MAX.
 4. STITCHING SHALL BE WITH NYLON CORE
NO. 3 SIZE TYPE I OR II, CLASS I, AND
NOT LESS THAN 6 NOR MORE THAN 8
IN ACCORDANCE WITH SPEC. DDD-S-7
 3. ENDS OF STITCHING SHALL BE BACK STIT
 2. SEAR ENDS OF ALL WEBBING TO PREVE
 1. STITCHING INDICATED BY DOTTED LINE
- NOTES:



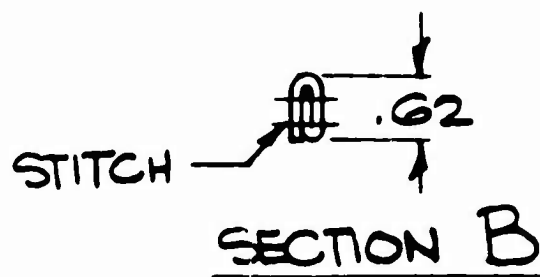
FITTING
AFT FACTORY

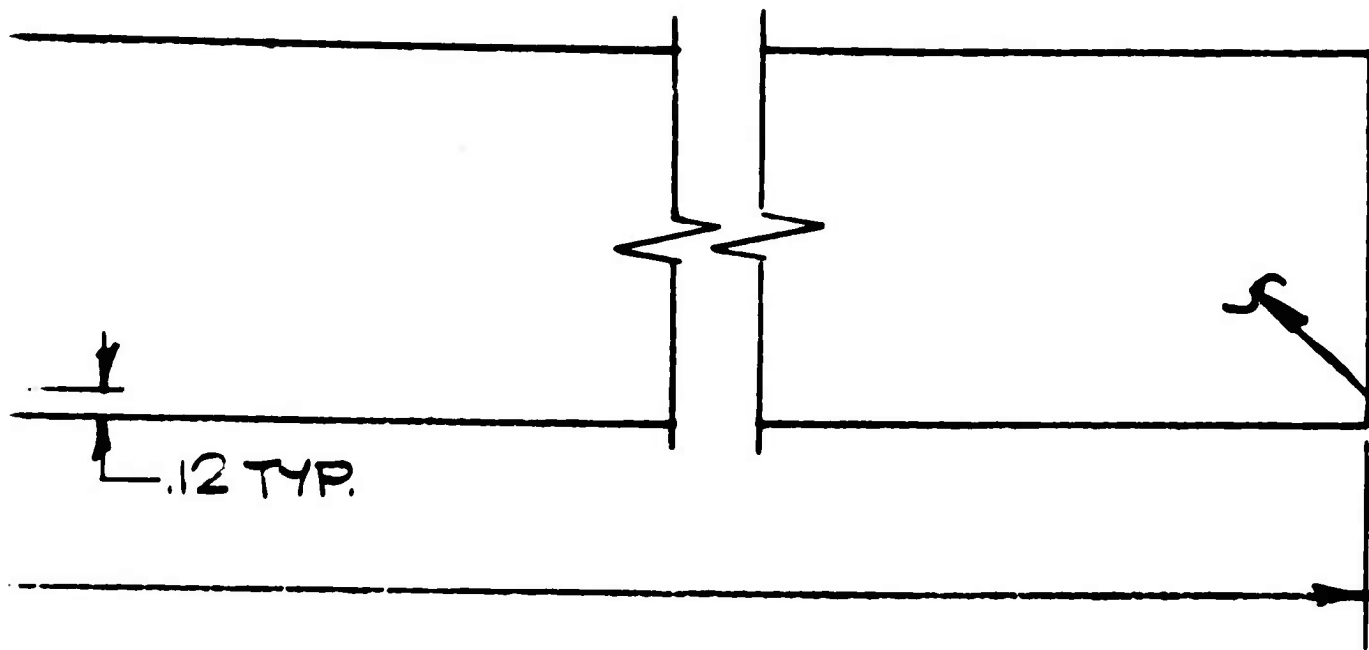


MIL-W-25361

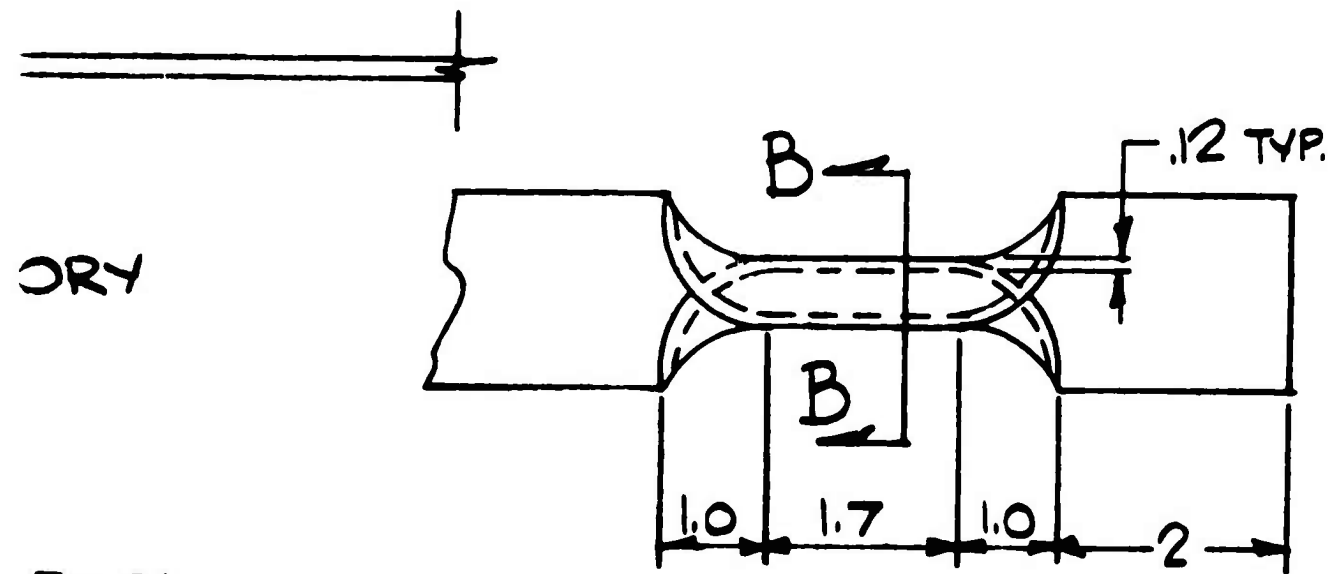
D, MIL-T-7807B
D SHALL CONTAIN
3 STITCHES PER INCH
751 TYPE 301
ITCHED 0.5 IN. MIN.
ENT FRAYING
IES - - - - -

DETAIL A
HALF SIZE





① WEBBING
SEE NOTE # 5



DRY

25361

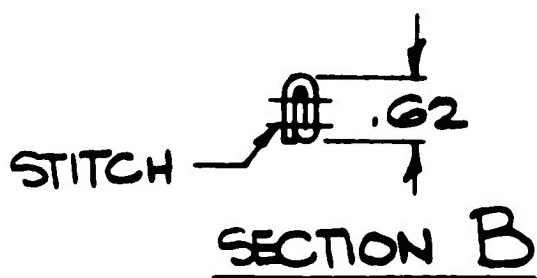
1807B

CONTAIN
S PER INCH
301

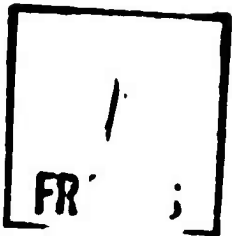
> IN. MIN.

1G

DETAIL A
HALF SIZE



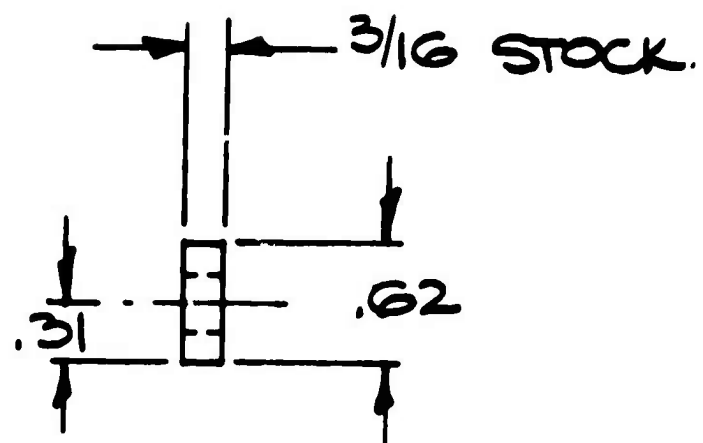
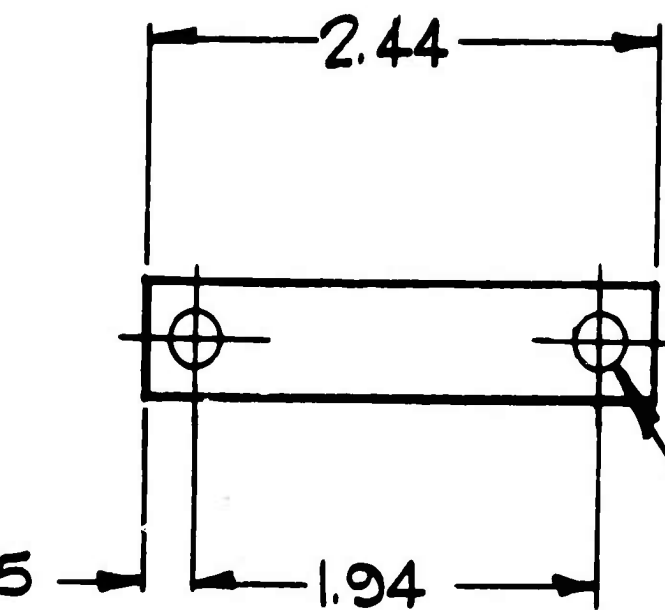
LENGTH OF STRAP		
AIRCRAFT	"L" DIM.	NEXT ASSEMBLY.
HC-1	18.1	HC-1-14
HU-1	16.5	HU-1-11
AC-1	20.8	AC-1-10



.25

B

J. BRE
NOTE:-



DRILL THRU 3/16 DIA.
2 HOLES

BREAK SHARP EDGES .02 R.